This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

Google books

https://books.google.com

DEPARTMENT OF COMMERCE
BUREAU OF FOREIGN AND DOMESTIC COMMERCE
JULIUS KLEIN, Director

LIBRARY
UNIVERSITY OF ILLINOIS
URBANA

TRADE PROMOTION SERIES—No. 28

# TURKEY

## A COMMERCIAL AND INDUSTRIAL HANDBOOK

BY

G. BIE RAVNDAL
American Consul General, Constantinople

PRICE, 75 CENTS
Sold by the Superintendent of Documents, Government Printing Office
Washington, D. C.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1926

Digitized by Google

Digitized by Google

MAR 27 '26 Anell
Direct gift. 2 Mr '26 no. 28, 1926 Ec.

# CONTENTS

| | Page |
|---|---|
| Letter of submittal | VIII |
| Introduction | 1 |
| Turkey's claim to attention | 1 |
| Raw materials plentiful | 1 |
| Reconstruction greatly needed | 1 |
| Climate and associations attract tourists | 2 |
| Political and social emancipation achieved | 2 |
| Economic policy of the New Turkish Republic | 2 |
| Principal aims of the Turkish Government | 2 |
| Agriculture stimulated as a basic need | 3 |
| Better transportation for local products | 3 |
| Protective tariff to encourage home industries | 4 |
| Foreign debt uncertainty retards investments | 4 |
| Exchange of populations | 4 |
| Recovery slow and contingent on financial policy | 4 |
| Geography | 6 |
| Turkey in Europe | 6 |
| Area and boundaries | 6 |
| Surface of the land | 6 |
| Climate | 7 |
| Political subdivisions | 7 |
| Constantinople | 8 |
| Adrianople | 9 |
| Other European Provinces | 9 |
| Maritime links | 10 |
| Turkey in Asia | 10 |
| Area and boundaries | 10 |
| Surface of the land | 11 |
| Mountains | 11 |
| Rivers | 11 |
| Lakes | 12 |
| Climate | 12 |
| Political subdivisions | 13 |
| Principal cities | 14 |
| Smyrna | 14 |
| Brusa | 15 |
| Angora | 15 |
| Adana | 16 |
| Black Sea ports | 16 |
| Cities of central and southern Anatolia | 17 |
| Cities of eastern Anatolia | 17 |
| Minor cities | 18 |
| Social conditions | 19 |
| Population | 19 |
| Moslem peoples | 20 |
| Turks | 20 |
| Kurds | 20 |
| Circassians | 21 |
| Lazis | 21 |
| Pomaks | 22 |
| Turkomans | 22 |
| Yuruks | 22 |
| Tahtajis | 22 |
| Christian peoples | 22 |
| Albanians | 22 |
| Armenians | 23 |
| Greeks | 23 |
| Assyrians | 23 |
| Jewish peoples | 24 |
| Jews | 24 |
| Donmehs | 24 |
| Modern cultural activities | 25 |
| Education | 25 |
| Government control | 25 |
| Financial support | 25 |
| "Westernizing" the Turkish schools | 26 |
| "Nationalizing" the community schools | 26 |
| Foreign schools | 27 |
| American institutions | 27 |
| Language and literature | 27 |
| Old school | 28 |
| Modern school | 28 |
| Art and science | 28 |
| Architecture | 28 |
| Painting | 29 |
| Music | 29 |
| Science | 29 |
| Emancipation of Turkish women | 29 |
| Former family life | 29 |
| Emancipating influences | 30 |
| Changes in family status | 30 |
| Social and business activities | 31 |
| Public health and social welfare | 31 |
| Public health | 31 |
| Administration | 31 |
| Physicians | 32 |
| Hospitals and nurses | 32 |
| American assistance | 32 |
| Infectious diseases and quarantine | 33 |
| Social welfare | 33 |
| Ojaks | 34 |
| Red Crescent | 34 |
| Boy Scouts and Campfire Girls | 34 |



Digitized by Google

| | Page |
|---|---|
| Government | 35 |
| Constitutional rights | 35 |
| Division of central authority | 35 |
| Legislative body | 36 |
| Distribution of deputies | 36 |
| Election of deputies | 36 |
| Qualification and length of term | 36 |
| Rights, privileges, and immunities | 37 |
| Assembly sessions | 37 |
| Assembly powers | 37 |
| Relation to cabinet | 38 |
| Executive, or President | 38 |
| Election and succession | 38 |
| Executive powers and limitations | 38 |
| Relations to legislative body | 39 |
| Council of Ministers | 39 |
| Judicial authority | 40 |
| Court jurisdiction | 40 |
| The High Court | 41 |
| Court freedom | 41 |
| Local authority | 41 |
| Provinces | 41 |
| Subprovinces and townships | 42 |
| Roads and trails | 43 |
| Communications | 43 |
| Attempts at road building | 43 |
| Recent legislation | 43 |
| Metaled roads in European Turkey | 44 |
| Conditions in Asiatic Turkey | 44 |
| Pre-war attempts | 44 |
| Persian caravan route | 45 |
| Samsun - Bagdad caravan route | 45 |
| Roads in western Anatolia | 45 |
| Central and northeastern Anatolia | 46 |
| Railways | 46 |
| Smyrna-Aidin Railway | 46 |
| Smyrna-Kasaba Railway | 47 |
| Mudania-Brusa Railway | 48 |
| Oriental Railway | 48 |
| Mersina-Adana Railway | 49 |
| Bosporus-to-Persian Gulf Railway projects | 49 |
| Anatolian Railway system | 50 |
| Mediterranean - to - Persian Gulf projects | 52 |
| Bagdad Railway | 52 |
| Other projects and construction | 53 |
| Angora-Sivas-Samsun project | 54 |
| Trebizond-Erzerum-Kars project | 54 |
| Industrial railroads | 55 |
| Indefinite projects | 56 |
| River transportation | 57 |
| Harbors | 57 |
| Constantinople | 57 |
| Bosporus and Golden Horn harborage | 57 |
| Ports and quays | 58 |
| Shipping activity | 59 |
| Transit advantages | 60 |
| Decline and remedies | 60 |
| Communications—Continued. | |
| Harbors—Continued. | |
| Smyrna and other Aegean ports | 61 |
| Shipping activity | 62 |
| Minor Aegean ports | 62 |
| Mersina and other Mediterranean ports | 62 |
| Other ports of Anatolia | 63 |
| Sea of Marmora | 63 |
| Black Sea | 63 |
| Ferry services | 64 |
| Shipping services | 65 |
| Foreign transoceanic | 65 |
| Turkish coastwise services | 65 |
| Seir-i-Sefain | 66 |
| Turkish merchant marine | 66 |
| Postal service | 66 |
| Organization and administration | 66 |
| Foreign post offices in Turkey | 67 |
| Assumption of Turkish control | 67 |
| Air mail service | 68 |
| The telegraph | 68 |
| Organization | 68 |
| Operating companies | 68 |
| Present service | 69 |
| The telephone | 69 |
| Constantinople service | 69 |
| Other services | 70 |
| Radio | 70 |
| Official installations | 70 |
| Private installations | 71 |
| Commercial aviation | 72 |
| Concessions | 72 |
| Outlook | 73 |
| Public utilities and reconstruction | 74 |
| Public utilities | 74 |
| Employment of foreign capital | 74 |
| Utility companies in operation | 75 |
| Water supply | 75 |
| Electricity, gas, and telephone | 75 |
| Tramways | 75 |
| Quays and ferries | 76 |
| Cities needing public utilities | 76 |
| Reconstruction | 76 |
| Government's contract proposal | 77 |
| Irrigation, reclamation, and water power | 78 |
| Latent resources | 78 |
| Projects and possibilities | 78 |
| Konia Plain | 78 |
| Cilician Plain | 79 |
| Smyrna region | 79 |
| Brusa region | 80 |
| Eastern Anatolia schemes | 80 |
| Other possibilities | 81 |
| Outlook | 81 |
| Agriculture and the land | 82 |
| Land tenure | 82 |
| Classes of landed property | 82 |
| Freeholds | 82 |
| Leaseholds | 82 |
| Property in mortmain | 83 |
| Public reservations and dead lands | 83 |
| Limitations on title and mortgage | 84 |

Digitized by Google

Agriculture and the land—Continued. Page
Land tenure—Continued.
Land reforms 84
Revisions needed 84
Revisions undertaken 84
Land cultivation and stock raising 85
Natural conditions 85
Human factors and hindrances 86
The peasant 86
The country squire and usury
Government tithes and taxation 87
War and its aftermath 87
Effects of World War on agriculture 87
Postarmistice conditions 88
Present-day remedial efforts 89
Government encouragement 89
Marketing medium opened 89
Creation of vilayet commissions 90
Tithe restriction and tax reform 90
Further urgent needs 92
Cereals 93
Plantation produce 93
Vegetables (sugar beets) 94
Industrial and medicinal plants 95
Tobacco 95
Cotton 97
Opium 98
Oil-producing seeds 100
Other industrial and medicinal plants 101
Fruits 103
Figs 103
Raisins 104
Other fruits 105
Nuts 105
Livestock 106
Present conditions 106
Projected improvements 107
Sheep and wool 107
Goats and mohair 108
Cattle 109
Horses 109
Asses and mules 109
Camels 110
Hogs 110
Animal products 110
Hides and skins 110
Sausage casings 110
Dairy products 111
Poultry and eggs 111
Honey and beeswax 112
Silk and cocoons 112
Furs 113
Fisheries 114
Fishing regulations 114
State encouragement 114
Forestry 116
Forest resources 116
Distribution 116
Commercial varieties 116
Subsidiary products 116

Forestry—Continued. Page
Forest care and exploitation 117
Conservation 117
Forest service 119
Exploitation, past and possible 119
Conditions affecting output 119
Annual output 120
Regional production and resources 120
Conclusions 126
Minerals and mining 127
Known resources and their distribution 127
Exploitation, past and potential 128
Causes of arrested development 128
Mining legislation 129
Reservations and concessions 130
Coal 131
Eregli Basin 131
Erzerum 133
Lake Van region 133
Western Anatolia 133
Other regions 133
Redistribution needs 134
Lignite 134
Production 134
Biga and Brusa 135
Smyrna 135
Central and eastern Anatolia 135
Other deposits 136
Copper 136
Argana mines 136
Harshut region of the Trebizond 138
Kars region 139
Other deposits and mines 140
Iron 141
Coastal deposits 141
Interior deposits 143
Emery 143
Occurrence 143
Production 143
Distribution and concessions 144
Chrome 145
Occurrence 146
Production 146
Distribution 146
Manganese 148
Exploitation 148
Distribution 148
Silver 149
Occurrence and concessions 149
Mines 149
Lead 150
Mines 151
Mercury 152
Concessions 152
Meerschaum 152
Occurrence and output 152
Method of exploiting 153
Sulphur 153
Antimony 154
Borax 154
Alum 155
Arsenic 155
Salt 155
Other minerals 156

Digitized by Google

Minerals and mining—Continued. Page
Exploitation, etc.—Continued.
Petroleum 156
Thermomineral springs 157
Occurrence 157
Exploitation 158
Outlook and needs 158
Manufactures 160
Industrial development prior to 1922 160
Situation under the Republic 162
State monopolies (alcohol, matches, tobacco) 162
Attitude toward capital 162
Effects of non-Moslem exodus 163
Labor conditions 164
Industries in operation 164
Textile 164
Cloth 165
Rugs and carpets 166
Embroideries and laces 167
Other textiles 167
Leather 167
Tanning 167
Leather working 168
Foodstuffs and tobacco 168
Flour 168
Confections and prepared foods 168
Vegetable oils 168
Cigarettes 169
Cement, brick and tile, pottery 169
Furniture 170
Other industries and products 170
Commerce and insurance 171
Foreign trade 171
Vicissitudes of 1912–1922 171
Recent trade, by countries 172
Based on Turkish statistics 172
Based on foreign statistics 173
Trade with the United States 177
Recent trade, by commodities 178
Export trade 180
Import trade 180
Cotton goods 180
Flour and wheat 180
Corn products 181
Rice 181
Edible oils 182
Sugar 182
Coffee 183
Lumber 183
Machinery 184
Hardware 185
Coal 186
Shoes and leather 186
Automobiles 186
Electrical supplies 187
Mineral oils 187
Rubber goods 188
Miscellaneous articles 188
General conclusions 188
Turkish domestic market limited 188
Resources and transit trade the attraction 189

Commerce and insurance—Continued. Page
Insurance 189
Fire risks 189
Foreign operation prior to 1923 189
Changes under the new régime 190
Other forms of risk 191
Business practice 192
Foreign penetration 192
Past efforts 192
Present conditions 192
Changes under new régime 192
Market gateways 193
Travel and mail facilities 194
Language 194
Selection of trade representatives 194
Unsuitability of occidental salesmen 194
Turkish ways of doing business 195
Superiority of native salesmen 195
Relations with the agent 196
Place of foreign branch manager 196
Competition and profits 197
Price cutting 197
Large versus small scale importation 197
Profits 198
Shipping methods 198
Quotations 198
Packing and marking 198
Invoices and customs tariff 199
Problem of credit 199
Sources of information 199
Prevalence of business morality 200
Speculative tendencies 200
Handling collections 201
Charges 201
Advertising 201
Local obstacles 202
Printing mediums employed 202
Store display 203
Future of advertising 203
Legal requirements and protections 203
Registration 203
Taxation 204
Other requirements 204
Trade-marks and patents 205
Bankruptcy and insolvency 205
Chambers of commerce 206
Public finance 207
Currency and exchange 207
Gold supply 207
Paper-money issues 207
Depreciation of paper money 208
In gold exchange 208
In foreign exchange 209
Effect of postarmistice trade resumption 209
Effect of Turko-Greek war 210

Digitized by Google

Public finance—Continued. Page
Currency and exchange—Continued.
Depreciation, etc.—Continued.
Effect of Lausanne treaty 210
Effect of governmental changes 211
Resulting exchange rates, 1922–1924 211
State finance 211
Haphazard collections and expenditures 211
Foreign debts 212
Decree of Muharram 212
Ottoman Public Debt Administration 212
Status on February 28, 1923 213
Loans administered by Government 214
Total outstanding, March 1, 1923 215
Debt payment 215
Question of medium 215
Share from detached territories 216
Attitude of present Government 216
Internal debt 217
Domestic requisitions 217
Budgetary deficits 217
Net internal obligations 218
Loans to meet internal debts 218
Public finance—Continued. Page
State finance—Continued.
Present national debt 218
Financial outlook 219
Banking 220
Lack of Turkish capital 220
Obstacles to bank creation 220
Moslem faith 220
Political and social hindrances 220
Hoarding 221
History of banking in Turkey 221
Ottoman Bank 221
Agricultural Bank 222
Ottoman National Credit Bank 223
Other native banks 223
French banks 224
German banks 224
Italian banks 225
Russian Banks 225
American banks 225
Other foreign banks 226
Rôle of the foreign bank 226
Outlook 227
Appendixes:
I. American relations with Turkey 228
II. Spelling of Turkish names 230
III. Weights, measures, and coin values 232
Statements of distance 232

ILLUSTRATIONS AND MAPS

Page
1. Constantinople: The Golden Horn (at left) and the Bosporus (ahead) facing VIII
2. Constantinople: The Galata Bridge across the Golden Horn facing 1
3. Constantinople: The Towers on the Bosporus and Robert College facing 28
4. Constantinople: Interior of St. Sophia facing 29
5. Peasant oxcarts in the Province of Afion-Kara-Hissar facing 70
6. The caravan meets the railroad at Lefkeh facing 71
7. Map of forest regions and modern Vilayets in Turkey 118
8. Map of railroads and mineral deposits in Turkey facing 128
9. Brusa: The Mosque of Ulu Jami facing 202
10. Constantinople: Section of the Grand Bazar facing 203
11. Map of Turkey facing 232

Digitized by Google

## LETTER OF SUBMITTAL

DEPARTMENT OF COMMERCE,
BUREAU OF FOREIGN AND DOMESTIC COMMERCE,
*Washington, September 1, 1925.*

SIR: There is submitted herewith a commercial and industrial handbook of Turkey. The greater part of the material used in this handbook has been supplied by Consul General G. Bie Ravndal, Constantinople, Turkey. The work of editing the material, together with the incorporation of certain additional data, was charged to James R. Mood, of the European Division.

Assistance was rendered in the preparation of this material by Trade Commissioner Julian E. Gillespie; Gardiner Howland Shaw and J. Pierrepont Moffat, Secretaries of Embassy, Constantinople; Consuls Charles E. Allen, Maynard B. Barnes, and R. A. Wallace Treat; and Vice Consuls Herbert S. Bursley, Edwin A. Plitt, and J. Loder Park, Constantinople. Appreciation is extended to the officials of the Department of State, Consul George Wadsworth, and Dr. K. E. Carlson, regional economist, of the Division of Near Eastern Affairs, for their cooperation in connection with this work.

Respectfully,

JULIUS KLEIN, *Director of Bureau.*

To Hon. HERBERT HOOVER,
*Secretary of Commerce.*



Digitized by Google

FIG. 1.—CONSTANTINOPLE: THE GOLDEN HORN (AT LEFT) AND THE BOSPORUS (AHEAD)

Digitized by Google

Digitized by Google

Digitized by Google

FIG. 2.—CONSTANTINOPLE: THE GALATA BRIDGE ACROSS THE GOLDEN HORN

Digitized by Google

# TURKEY: A COMMERCIAL AND INDUSTRIAL HANDBOOK

## INTRODUCTION

### TURKEY'S CLAIM TO ATTENTION

The Ottoman dominions, both politically and economically, for centuries played a major part in Old World affairs. They fell heirs to the caravan routes to the East which, prior to the discovery of America and of a sea route to India, constituted a cardinal factor in the economics of the then Western world. Turkish vessels for ages controlled the Atlantic entrance into the Mediterranean. The Black Sea was in effect a Turkish lake. The English Levant Co. (1581–1825), following in the footsteps of Venice and Genoa, traded almost exclusively with Turkish markets. American commerce with Smyrna, in the days of Washington and his immediate successors, loomed large in the eyes of Boston merchants and shipowners. Although Turkey's strategic advantages as the gateway to the Orient have been somewhat lessened by the Suez Canal, its geographic location will always assure its chief rôle as the connecting link between East and West, and Constantinople as the center of transshipment.

### RAW MATERIALS PLENTIFUL

Of special economic interest to-day is the fact that Turkey, although much reduced in size, possesses natural products which are not found elsewhere or at least which are most conveniently obtained from Turkey by modern manufacturing interests. Among such raw materials may be mentioned borax, emery, meerschaum, chrome, mohair, silk, opium, and tobacco.

### RECONSTRUCTION GREATLY NEEDED

Turkey's resources have been but slightly touched and offer an attractive field for industrial enterprises. Although concessions on these resources were granted in large numbers by the Imperial Ottoman Government, the present Republic Government seems reluctant to confirm them on other grounds than that of operation for the State. The country especially needs its devastated areas restored and its wealth of natural resources made available by extension of modern transportation. In other words, Turkey needs railroads, ports, street-car lines, telephones, road construction, reclamation works, factories, bridges, public buildings, electrical plants, warehouses, elevators, sawmills—in short, every essential element of reconstruction.



Digitized by Google

### CLIMATE AND ASSOCIATIONS ATTRACT TOURISTS

Although it is but recently that tourist cruises have, to any important extent, covered Constantinople in addition to Athens, Turkey nevertheless plays a considerable rôle in the world's tourist traffic. Its climate, natural scenery, and historical associations command appreciative attention, and its thermal springs at Brusa, Ala-Shehir, Angora, and Bozanti are unsurpassed in the quality of their waters if not, as yet, in the luxuriousness of their equipment. It is not strange, then, that Turkey draws both travelers and health seekers, nor unreasonable that it should hereafter entertain them in greatly increased numbers, since, in addition to direct boat connections, it is possible to travel by rail from Paris, via Constantinople, Damascus, and Jerusalem, to Cairo and beyond with no interruption of railway line except at the crossing of the Bosporus at Constantinople and the crossing of the Suez Canal at Kantara.

### POLITICAL AND SOCIAL EMANCIPATION ACHIEVED

Turkey's advance along political, social, and economic lines has been especially manifest since the Congress of Paris in 1856, when the Ottoman Empire was admitted into the concert of civilized nations. There followed the Midhat Pasha reform movement of 1876, in which year a constitutional form of government was first attempted in Turkey; the Young Turk Revolution of 1908, enforcing the reapplication of the abortive constitution of 1876; and in 1923 the proclamation of a republic.

Socially nothing has surpassed in significance and promise the emancipation of the Turkish woman, so powerfully promoted by the exigencies of the Great War. In its economic affairs Turkey has ultimately achieved independence of foreign tutelage. The success of the Nationalist rising of 1919–1922, under the inspiration of Mustapha Kemal Pasha, and of the "National pact" of January 26, 1920, culminating in the Lausanne treaty of 1923, gave Turkey not only a fairly homogeneous population but also full liberty in its national housekeeping.

It brought about the separation of church and state, as inevitably required in order to render possible in practice the abrogation of the capitulatory or exterritorial régime. There are no more semi-autonomous "minorities" in Turkey, no special privileges enjoyed by foreigners, no curtailments of Turkish sovereignty.

## ECONOMIC POLICY OF THE NEW TURKISH REPUBLIC

**By Julian E. Gillespie, American Trade Commissioner, Constantinople**

Protectionism and westernization constitute the basis of the economic policy adopted by the new Turkish Republic in carrying out its plans for reconstructing and developing a "Turkey for the Turks." In the negotiation of the Lausanne peace treaty the new Turkish Government insisted on the abolition of the former capitulatory régime and the adoption of the principles of reciprocal most-favored-nation treatment.

### PRINCIPAL AIMS OF THE TURKISH GOVERNMENT

Even during the Lausanne conference it appeared that the Government was endeavoring to formulate a definite economic policy,

Digitized by Google

the principal aims of which were: (1) To protect and further domestic production and industry; (2) to reduce the adverse trade balance of the country; (3) to prevent further depreciation of the Turkish currency; (4) to establish a budget and equalize as nearly as possible the expenditures and revenues of the country; (5) to improve means of communication; (6) to employ foreign specialists to assist in the economic development of the country.

Following the conclusion of the Lausanne treaty, the development of a well-defined economic policy in the new Turkish Republic was hampered by a strong ultranationalist spirit. As a result, the first action taken by the Government was to abolish all vestiges of the former economic régime which savored of the capitulations.

### AGRICULTURE STIMULATED AS A BASIC NEED

In drawing up legislative measures intended to further the general economic development of the country the Government has been handicapped by the lack of leaders experienced and trained in economic, commercial, and financial affairs. However, it has recognized the practical difficulties, if not complete impossibility, of attempting to industrialize a country which is primarily agricultural and pastoral, and has therefore endeavored to stimulate and promote agricultural activities. Laws have been promulgated by the National Assembly for the assistance and encouragement of agriculture. Immediate steps have been taken to allocate land to demobilized soldiers and to distribute seeds and modern agricultural equipment to the farmers throughout the country. The Agricultural Bank, the only financial institution in Turkey making loans directly to the farmers, has been given additional governmental assistance, and a ministry of agriculture created. Particular attention likewise is given to the increase and improvement of agricultural schools and to the organization of agricultural societies and cooperatives, which as yet are only in their infancy. At the same time the Government is encouraging the cultivation, for export, of tobacco, raisins, figs, and cotton, with the purpose of reducing the adverse trade balance.

### BETTER TRANSPORTATION FOR LOCAL PRODUCTS PLANNED

Constantinople, with a population approximately equaling one-eighth that of all Turkey, necessarily depends upon other communities for the more important part of its food supply. Owing to the inadequate means of communication with the interior and to consequent high cost of transportation, it has been possible to import wheat and flour into Constantinople from foreign countries cheaper than from the producing districts of Anatolia. The former Turkish capital thus contributed largely to the adverse trade balance of the country, and was almost entirely responsible for the demand for foreign exchange which brought about the continued depreciation of Turkish currency. Therefore, one of the first problems of the new Government has been to endeavor to increase the supply and consumption of domestic food products in Constantinople. To accomplish this end, the Government is encouraging and stimulating agricultural activities throughout the country, and announces its intention of improving transportation facilities. It is repairing both

Digitized by Google

highways and existing railways. In addition, new railways are being constructed from Samsun to Sivas and from Angora to Sivas. Moreover, as the harvest season has approached, the Governmnet has ordered reduced freight rates for grain shipments from points on the Bagdad and Anatolian railways to Constantinople.

### PROTECTIVE TARIFF TO ENCOURAGE HOME INDUSTRIES

The commercial convention signed at Lausanne, which provided for a high protective tariff on imports, is perhaps the most important protective measure affecting the economic development of the country. The new tariff, which was put into effect in November, 1922, is the old 1916 specific import tariff. In March, 1923, provision was made for increasing the customs duties by applying coefficients of 5, 9, and 12 to the basic schedule, according to the classification of the merchandise. The agreement also contained assurances that the signatory powers would be accorded equal and most-favored-nation treatment, subject, however, to reciprocity. Also, the convention provided for the levy of certain consumption taxes by the central government, and of octroi taxes by the various local governments. Turkey agreed to abolish all prohibitions of import and export, except for reasons specifically stated in the agreement.

### FOREIGN DEBT UNCERTAINTY RETARDS INVESTMENTS

While Turkey, in the matter of currently accumulating debts, is probably in a better financial condition than any other country in Europe, its credit standing has not been reestablished. Thus far the Government has assiduously refrained from issuing additional paper currency, nor has it made any effort to negotiate a foreign loan. But in the matter of the existing foreign bonded public debt, the suggested division of these obligations between Turkey and the independent states formerly comprised in the Ottoman Empire, as well as the method for payment of coupons, has not as yet been definitely confirmed; consequently, foreign interests are hesitant about making further investments in Turkey. The initiative of the Government in formulating a budget system is a step forward.

### EXCHANGE OF POPULATIONS HINDERS TRADE

The commercial life of the country showed no improvement during 1924; on the contrary, business was extremely dull, particularly in the import trade. This acute depression followed the exchange of Greeks and Armenians living in Turkey for Moslems residing in Greek territory. As this non-Mohammedan population carried on the more important part of commerce in Turkey, its sudden exodus resulted in disruption of trade, loss of capital to the country, temporary withdrawal of credit facilities, and the advent of a new and inexperienced class of traders. The summer of 1925, however, brought distinct improvement in business conditions.

### ECONOMIC RECOVERY SLOW AND CONTINGENT ON FINANCIAL POLICY

While it undoubtedly will take several years to bring about any substantial improvement in the general Turkish commercial and economic situation, impartial observers as well as unfriendly critics admit that the Government has started off on a sound basis. The

Digitized by Google

protective tariff policy now in force will, it is believed, in time attract foreign capital and create factories and home industries. These, accompanied by a rational exploitation of farms, mines, forests, and fisheries, will greatly enhance the purchasing power of the people as well as multiply their requirements, and thus enlarge the country's trade, both export and import. Prosperity will also essentially contribute to a growth in population, which at the present time is only about 26 persons to the square mile. However, until the stability of the present financial policies of Turkey has been demonstrated, the progress of economic improvement in the country will be slow.

Digitized by Google

# GEOGRAPHY

The Turkish Republic, originally confined within the Anatolian limits of Asia Minor, was extended on the east by the acquisition of the Kars section from Georgia and Armenia under the treaty concluded with the Caucasian States at Kars on October 13, 1921, and ratified by the Grand National Assembly on March 16, 1922. Under the treaty of Lausanne, signed July 24, 1923, and ratified August 6, 1924, it was extended on the west to include the European territory of Eastern Thrace. The entire Republic now comprises 72 Vilayets, or Provinces, covers a total area of 282,627 square miles, or slightly more than the States of California and New Mexico combined, and has a population of 7,549,000 souls.

## TURKEY IN EUROPE

### AREA AND BOUNDARIES

Turkey in Europe, lying roughly between 41° and 42° 30′ north latitude and between 26° 30′ and 29° east longitude, has an area of 8,819 square miles, or slightly more than the State of Massachusetts.

Its northern, or Bulgarian, boundary is a broken line running in a general east-west direction from the mouth of the Rezvaya River on the Black Sea to a point on the Maritza River about 15 miles northwest of Adrianople. Its western, or Greek, boundary follows the course of the Maritza River from the point mentioned above to Enos, on the Aegean Sea, except that opposite Adrianople the line shifts to the south, to give to Turkey the town of Karagatch, where the railway station for Adrianople is located. From Enos southward the Aegean Sea forms the western boundary. The eastern boundary is the Black Sea and the Bosporus. The Sea of Marmora and the Strait of the Dardanelles constitute the southern boundary.

### SURFACE OF THE LAND

The land surface, except for the mountain ranges mentioned below, is in general undulating. The altitude rarely exceeds 1,500 feet and is generally much lower, except in the east, facing the Black Sea, where the low Istranja Range in some places reaches 3,000 feet, and in the south, facing the Marmora and the Dardanelles, where the Tekfur Ridge (Tekir-Dagh) at points attains 2,000 feet.

The drainage runs northward from the Tekfur Mountains and westward from the Istranja. The only interior stream of any importance is the Ergeneh, a nonnavigable eastern tributary of the Maritza which, with the numerous rivulets that feed it, waters the interior valleys.

The Maritza (Meritch, Marica), although a border river and not therefore strictly Turkish, is nevertheless deserving of consideration.



Digitized by Google

At present it is but a sluggish stream, carrying down to the Aegean its own waters and those of the Arda, the Tunja, and the Ergeneh. Its bed is dotted with rocks and sand bars and its mouth spreads out to form a series of swamps. But it has a certain importance in that by dredging, locking, and damming it might conceivably be rendered navigable as far as Adrianople, thus reviving the prosperity of that city as well as of the whole territory through which it flows.

The rivulets flowing down from the mountains to the Black Sea and the Marmora are of negligible importance, except the Bey-Su, whose deep mouth, known as the Golden Horn, forms an important part of the harbor of Constantinople.

## CLIMATE

The mean summer temperature of the peninsula, which forms the southeastern tip of Turkey in Europe and on which is built the city of Constantinople, is 72° F., and the mean winter temperature is 41° F. The rainfall ranges from 1.06 inches in summer to 4.8 inches in winter.

The absence of a satisfactory meteorological service makes it impossible to give temperature and rainfall data for the interior. However, behind the mountains skirting the Black Sea and the Sea of Marmora the temperatures in both winter and summer are much more extreme; heavy snowfall in winter is common, whereas snow in Constantinople and along the seacoast is rare.

## POLITICAL SUBDIVISIONS

The Turks divided their territory, so far as practicable, into Eyalets and later into Vilayets, or Provinces. Each Vilayet comprised a fairly large area until 1923, when the number was greatly increased and the respective areas materially reduced. The boundaries of these Provinces have never been accurately delimited by surveys. In most cases each Province bears the name of its principal city.

Turkey in Europe comprises six of the present 72 Vilayets, namely, the Provinces of Constantinople, Adrianople, Gallipoli, Kirkler-Ili, Chatalja, and Rodosto. (For a map of their relative location and boundaries, see p. 118.) Their respective areas and estimated population are shown in the following table:

VILAYETS OF TURKEY IN EUROPE AS REORGANIZED IN 1923

| Vilayet (Province) | Area (square miles) | Population (estimated) |
|---|---|---|
| Adrianople (Edirneh) | 2,375 | 118,000 |
| Constantinople (Istambul) | 1,300 | 1,100,000 |
| Gallipoli (Gelibolu) | 520 | 38,000 |
| Kirkler-Ili (formerly Kirk-Kilisseh, or Kirk-Klissa)[1] | 1,761 | 50,000 |
| Chatalja (Tchatalja) | 778 | 31,000 |
| Rodosto (Tekfur-Dagh, Tekir-Dagh) | 2,085 | 20,000 |
| Total | 8,819 | 1,357,000 |

[1] Name changed by Grand National Assembly, in Law 537, passed Dec. 20, 1924, and published Jan. 14, 1925.

Digitized by Google

## CONSTANTINOPLE

The Province of Constantinople includes not only the city of Constantinople, its suburbs, and the immediately surrounding territory on the European side of the Bosporus and the Sea of Marmora, but also the suburbs and a small district on their Asiatic shores, besides the four small islands of Prinkipo (Kizil Adasi), Halki (Kalki, Chalki, Hebeli-Ada), Antigoni (Burgas-Adasi), and Proti (Kenali-Ada) in the Sea of Marmora, which constitute the group of Princes Islands (Kizil-Adalar). The area of the Province is 1,300 square miles, and its population about 1,000,000.

The city of Constantinople proper (Stambul, or Istambul) is built on the promontory at the southern end of the Bosporus on the European side, which juts out into the confluence of the Bosporus, the Sea of Marmora, and the Golden Horn. It has spread far beyond its original walls and now comprises the European business quarter of Galata, on the north shore of the Golden Horn; Pera, on the hilltops above; Stambul, the Turkish quarter on the south shore; and numerous suburbs lining either bank of the Bosphorus as far as the Black Sea, and either shore of the Marmora as far as Kartal on the Asiatic side (halfway to entrance of Izmid Gulf( and San Stefano, of treaty fame, on the European side. The picturesque settlements on the Princes Islands are also within the city limits.

Constantinople was founded in 328 by the Roman Emperor, Constantine the Great; but the town of Byzantium, which he merely enlarged and improved, had existed on the same site for centuries, having been built, it is supposed, in 657 B. C., by immigrants from Megara.

*Commercial importance.*—To-day, regardless of its vast areas destroyed by conflagrations, its palaces deserted since the expulsion of the dynasty, its Government buildings vacated by the transfer of the capital to Angora, and its port reduced to idleness by the reorganization going on in Russia and Asia Minor and by the commercial crisis affecting the whole world, Constantinople sits at the point where the railway system of Europe meets that of Asia and where the waters of the Mediterranean meet those of the Black Sea—as a monument of the past and as a beacon of hope for the future development of the Balkans, Russia, Middle Asia, and Turkey, whose prosperity is inseparably linked with its own.

In spite of its seeming temporary eclipse, Constantinople holds a wealth of attractions for the traveler on business or pleasure. Its bazars, though not as busy as they were a decade ago, still contain vast stocks of oriental merchandise; its hinterland is crying out for capitalistic development; its harbor invites the ships of the world.

*Tourist attractions.*—For the tourist, its climate and the artistic beauty of its scenery are unsurpassed, while its monuments of the past present a deep attraction for the student of history and archaeology. The Mosque of St. Sophia ranks among the world's most famous cathedrals. Constantinople's walls are largely intact and constitute an interesting subject for study. It has fairly well-preserved ruins of a hippodrome laid out by Septimus Severus in 203 and completed more than a century later by Constantine the Great; interesting ruins of a Roman aqueduct; and the immense basilica cistern for the storage of water in times of siege, a trip through which by boat is a duty which every visitor owes to himself.

Digitized by Google

Add to these the sarcophagus of Alexander the Great, a promising museum of antiquities, numerous mosques of rare beauty, the Dolma Bagcheh, and Yildiz palaces of the latter-day Sultans, the ancient Seraglio of the earlier padishahs, an interesting medical university, a British cemetery where lie the dead who fell during the Crimean War, the Turkish cemetery at Eyub on the Golden Horn, not a few attractive Government buildings, two American colleges of note, the famous Galata bridge on which East meets West, and it is not strange that visitors come in ever-increasing numbers to take advantage of what the city has to offer; especially since its hotels, restaurants, clubs, cabarets, and its bathing, boating, tennis, and golf facilities involve no sacrifice of the comforts and recreations of life.

### ADRIANOPLE

The Province of Adrianople, covering the westernmost part of Turkey in Europe, is important from the fact that its capital is the city of Adrianople, the second city in size and importance of European Turkey and the Turkish terminus of the railway connecting Constantinople with Western Europe.

The city of Adrianople (Edreneh, Edirne, Odrin) lies partly on either bank of the Tunja River at the point of its confluence with the Maritza, and properly includes the village of Karagatch, a suburb that has grown up as a railway station for the city proper. The population of the city, which is almost exclusively Turkish, is placed at 56,000.

Adrianople, known to the ancients as Uskudama until it was embellished and renamed for himself by the Roman Emperor Hadrian (117–138), is distinctively oriental in appearance. Its outstanding monument is a mosque of Sultan Selim, dating from the sixteenth century. Slight traces also exist of the palace of Sultan Murad, accidentally destroyed by an explosion during the Russian occupation of 1829 when it was being used as a powder magazine.

*Commercial importance.*—The city is the distributing center for a region of agricultural importance, which was formerly known for its silk and wines as well as for general agricultural produce. It has suffered heavily, however, by the withdrawal of the Turkish frontier in Europe to its very gates. Its future seems to be largely dependent, first, on the continuance of peace; second, on the improvement of the Maritza River; and third, on the success of the experiment of compulsory exchange of populations with Greece. The replacing of the Greek peasants of Turkey by Moslem peasants from Greece has necessarily disorganized somewhat the agricultural life of the country.

### OTHER EUROPEAN PROVINCES

The remaining Provinces of Kirkler-Ili, Gallipoli, Rodosto, and Chatalja are relatively unimportant. Their capitals, bearing the same names as the Provinces, are country towns which possess nothing that is striking. Chatalja and Kirkler-Ili have the advantage of rail connections, while Rodosto and Gallipoli lie on the sea. All of these Provinces are at present in an undeveloped state for

Digitized by Google

lack of sufficient railroads and roads, with the result that much arable land is so effectively isolated as to be lost to agriculture.

### MARITIME LINKS

Turkey in Europe is separated from Turkey in Asia by the Sea of Marmora and its two straits, the Bosporus and the Dardanelles—all a part of the maritime system bounding Europe on the south and southeast. The Marmora, 4,500 square miles in area, is connected with the Black Sea by the Bosporus Strait and with the Aegean Sea by the Strait of the Dardanelles.

These two narrow maritime rivers join the Black Sea basin to the outside world and at the same time subject its commerce to the control of the possessor of Constantinople. No other city can boast such natural sea defenses, and no other State than Turkey can boast the inclusion within its territorial waters of such an important link of the world's waterway system. The Bosporus is 18 miles long and less than 3 miles wide at its point of greatest width; the Dardanelles (Hellespont) is 47 miles in length and has an average width of 3 to 4 miles. Both are lined on either side by hills.

## TURKEY IN ASIA

Turkey in Asia, or Anatolia (the land of the rising sun), which comprises the preponderant part of Asia Minor, has been since the dawn of history the point of junction and conflict between the civilization of the East and that of the West.

### AREA AND BOUNDARIES

Most recent figures give the area of Anatolia as 273,808 square miles, consisting in overwhelming proportion of land and to a very limited extent of water.

Modern Turkey in Asia comprises all the territory included between the Black and Marmora Seas and the Straits of the Bosporus and the Dardanelles on the north, the Aegean Sea on the west, the Mediterranean Sea and the borders of Syria and Iraq (Mesopotamia) on the south, and the borders of Persia and the Russian Caucasus (now the three Federated Transcaucasian Socialist Soviet Republics of Georgia, Armenia, and Azerbaijan) on the east. In general outline this territory is a rectangle, lying roughly between 36° 30′ and 42° north latitude and between 26° 30′ and 43° east longitude.

The whole of the northern and western boundaries and almost half of the southern boundary of this rectangle are formed by water. The Syrian boundary is a line running roughly east-west from Payas (Bayas) on the Gulf of Alexandretta (Iskanderun Keurfezi) to the junction of Syria with Iraq. The Russian boundary runs southeastward from a point just south of the port of Batum to the northwest extremity of Persian territory, and the Persian boundary continues from near Mount Ararat (Agri-Dagh) southward to the undetermined point of contact with Iraq.

The Iraq boundary was not settled by the Lausanne Conference of 1923, which left the determination of this line to separate negotia-

Digitized by Google

tions between Great Britain and Turkey or, in the event of disagreement, to the arbitration of the League of Nations.

## SURFACE OF THE LAND

Interior Anatolia is a vast series of table-lands, narrowing toward the east and lying at altitudes varying from 2,000 feet in the west and northwest to 4,900 feet in the east. The coast is fringed throughout its length with narrow plains; the interior is broken up into narrow river valleys and isolated plateaus, well adapted to agriculture. The only desert region of any importance is that in the immediate neighborhood of the salt lake, Tuz Geul, northeast of Konia.

### MOUNTAINS

When the extreme east is reached the table-lands give way to an agglomeration of inactive volcanic mountains dotting the whole eastern and northeastern part of the country, to which the appellation Armenia is usually given. The highest of these elevations, Mount Ararat (17,000 feet), stands at the point of junction of Turkish, Russian, and Persian territory.

To the north of the table-lands and skirting the Black Sea rise the mountains known as the Pontic Alps. To the southwest, bordering the Mediterranean, lie the Taurus and Anti-Taurus ranges, continuations of which form to the northeastward a series of peaks running in a general east-west direction through the center of Anatolia to join with the Armenian highlands in the east. South of this series of peaks is the broken plateau of Kurdistan, which descends gradually into the plain of Iraq (Mesopotamia). In the west and northwest the table-lands fall gradually away to the Aegean and Marmora Seas, forming narrow valleys. The mountains between these valleys, after disappearing with the coast, reemerge as the islands of the Aegean Archipelago and the Marmora group, which were once parts of the mainland.

### RIVERS

While Anatolia possesses numerous rivers, none is of present serious importance, so far as concerns the portions that water Turkish territory. The majority of them flow from the interior highlands through passes in the northern mountains into the Black Sea, or follow the slope of interior table-lands into the Aegean and Marmora Seas; a smaller number flows through the passes of the Taurus and Anti-Taurus into the Mediterranean. The Tigris (Shatt-Dijla) and Euphrates (Frat Su, or Furat), rising in eastern Turkey, flow away to the southward across Iraq to the Persian Gulf.

Among the rivers that empty into the Black Sea, the most important on the eastern half of the coast are the Kizil Irmak (Kyzyl Yrmak, ancient Halys), the longest river wholly on Turkish territory; the Yeshil-Irmak (Yechil, Jeshyl, ancient Iris), and its long eastern tributary the Kelkit-Irmak, or Germeli-Su (ancient Lycus); the Terma-Chai (ancient Thermodon) next east of the Yeshil-Irmak; and the Choruk (Tshoruk, Tchourouk, Churuk), debouching at Batum. In the western half the two streams of importance are the Sakaria (ancient Sangarius), from whose banks the Turks turned

Digitized by Google

back the tide of the Greek invasion of 1922; and the Filias Chai (ancient Billaeus), 65 kilometers northeast of Eregli.

The Sea of Marmora receives the united waters of the Susurlu-Su (ancient Macestus) and the Adranos (ancient Rhyndacus) which join just northwest of Lake Abulyond and then receive from the east the waters of the Nilufer-Chai (Ulufer, Ulfer, Nenuphar) coming down from the Mysian Olympus south of Brusa. Farther west, beyond Panderma, are the Genen-Chai (Geunen, Gonen, Gunan, ancient Aesepus) and the Biga-Chai.

Flowing into the Aegean at Smyrna is the Gediz Chai (Ghediz, ancient Hermus); just above Scala Nova, the Kuchuk Menderes (Little Meander, ancient Caystrus); and midway between the Gulfs of Scala Nova and Mendelia, the Buyuk Menderes (Big Meander, or Meander).

Into the Mediterranean on the south, flowing through the Taurus range and fertilizing the Cilician Plain of Adana, are the Tarsus-Chai (ancient Cydnus); the Seihan-Irmak (Sihun, Saihun, Seihun, ancient Sarus); and the Jeihan-Chai (Djihan, Djaihun, Djeihan, ancient Pyramus).

In eastern Turkey are the Kara-Su (Western Euphrates) and the Murad-Su (Eastern Euphrates) which unite to form the Euphrates (Frat, Furat). In the southeast is the Tigris which, like the Euphrates, is lost to Turkey by its passage into Iraq.

None of these rivers at the present time is usable for inland waterway transportation except as log runs for the timber industry, being in general too short, too swift, and too variable in depth of channel; but as sources of power generation their possibilities are reputed vast. The Tigris, for instance, is estimated capable of supplying all the energy necessary for the exploitation of the Argana copper mines.

### LAKES

Asiatic Turkey contains two lake regions. The one lies near Brusa and embraces the Sabanja, the Iznik (Nicea, ancient Ascanius Lacus), the Manias (ancient Miletopolis), and the Abulyond (Apollonia) lakes. The other region lies to the west of Konia and covers the lakes of Ak-Shehir, Egerdir, Burdur (Bordur, Buldur), Bei-Shehir (Kirili, ancient Karalis) which is the source of irrigation supply for the Konia Plain, and Aji-Tuz.

In addition, numerous lakes of lesser importance are scattered throughout the country, besides the great salt-water lake of Van (2,420 square miles) in the east, and the salt lake of 380 square miles, known as Tuz-Geul (ancient Tatta), in the west-central region east of Konia. This lake yields 19,000 tons of salt per annum. The lakes of the Brusa region abound in fish.

## CLIMATE

Two distinct climatic zones are noted in Asiatic Turkey, the coastal and the interior. Along the entire coast, from Trebizond on the Black Sea to Mersina on the Mediterranean, the climate is mild and humid, the humidity in summer constituting more or less of an obstacle to human comfort. In the interior the climate runs to extremes, the winters being long and cold and the summers short and

Digitized by Google

hot. The length of the winter varies from four and one-half months in the west to seven and one-half months in the east, and the climate is in general severer than the climate of Greece, Italy, or Spain, which lie in the same latitude.

The annual rainfall in the coastal region, according to Hann's Handbuch der Klimatologie (1911), averages from 22 to 33 inches, and in the interior only about 8 to 14 inches. Serious droughts are relatively frequent, and are a determining factor in agriculture.

## POLITICAL SUBDIVISIONS

The Turks originally divided modern Turkey in Asia into 12 Provinces called Eyalets, as follows: Hudavendigiar (later Brusa), Aidin (Smyrna), Karaman, Adana, Bozuk (eastern Angora), Kastamuni, Sivas, Trebizond, Erzerum, Van, Kurdistan, Harput.

The term "Eyalet" was subsequently discarded for that of "Vilayet," and the country was given a political subdivision varying slightly from the previous one as to frontiers and names of Provinces. This subdivision, which was retained until 1923, was the following: Brusa, Smyrna, Kastamuni, Angora, Konia, Adana, Sivas, Trebizond, Erzerum, Mamuret-ul-Aziz (including Harput), Diarbekir, Bitlis, and Van, and the independent "sanjaks" (subprovinces) of Izmid and Biga, the names being suggestive of the locations of the Provinces.

Since the reorganization of 1923, Asiatic Turkey has had to its credit 66 Provinces, whose names appear in the following table, together with their estimated areas and population and their principal variant forms of spelling. (For a map of their relative location and boundaries, see page 118.)

VILAYETS OF TURKEY IN ASIA AS REORGANIZED IN 1923

| Vilayet (Province) | Area (square miles) | Population (estimated) | Formerly part of Vilayet or Mutessarifat of— |
|---|---|---|---|
| Adalia (Antalia, Atalia) | 5,542 | 216,000 | Konia. |
| Adana | 3,204 | 106,000 | Adana. |
| Afion-Kara-Hissar (Kara-Hissar-Sahib) | 4,173 | 180,000 | Brusa. |
| Aidin | 2,946 | 100,000 | Smyrna (or Aidin). |
| Aintab (popularly called Ghazi Aintab, from its capital). | 1,296 | 95,000 | Aleppo (now detached). |
| Akserai | 2,161 | 66,000 | Konia. |
| Amasia (Amassia) | 3,115 | 94,000 | Sivas. |
| Angora (Enguri) | 10,904 | 189,000 | Angora. |
| Ardahan | 2,926 | 47,000 | Kars (acquired). |
| Argana( Arghana) | 1,030 | 24,000 | Diarbekir. |
| Artvin | 1,046 | 24,000 | Kars (acquired). |
| Balikisir (Balikesser, Balikisri, Balikesri) | 5,019 | 83,000 | Brusa: Sanjak of Karasi (Karassi). |
| Bayezid (Bayazid, Bajazid) | 3,803 | 33,000 | Erzerum. |
| Bilejik | 2,946 | 61,000 | Brusa: Sanjak of Ertogrul. |
| Bitlis | 3,434 | 18,000 | Bitlis. |
| Bolu (Boli, Bolou) | 4,234 | 100,000 | Kastamuni. |
| Brusa (Brousse) [1] | 3,942 | 81,000 | Brusa. |
| Burdur (Bordur, Buldur, Bourdour) [2] | 2,942 | 43,000 | Konia. |
| Chanak-Kalesi (popularly called Chanak) | 2,580 | 86,000 | Biga: Kaza of Kale-Sultanieh. |
| Chorum (Tchorum, Tchoroum, Tshorum) | 4,503 | 123,000 | Angora. |
| Denizli | 3,284 | 128,000 | Smyrna. |
| Dersim | 1,788 | 31,000 | Mamuret-ul-Aziz. |
| Diarbekir (Diarbekr) [3] | 4,584 | 79,000 | Diarbekir. |

[1] Spelling in accordance with decisions of the United States Geographic Board.
[2] Spelling as adopted by the Department of State.
[3] Pronounced Dee-ar-bay-keer.

Digitized by Google

VILAYETS OF TURKEY IN ASIA AS REORGANIZED IN 1923—Continued

| Vilayet (Province) | Area (square miles) | Population (estimated) | Formerly part of Vilayet or Mutessarifat of— |
|---|---|---|---|
| Erzerum | 13,069 | 151,000 | Erzerum. |
| Erzinjan (Ersingan, Erzindjan) | 3,026 | 52,000 | Do. |
| Eski-Shehir (Eskishehr, Eski-Chehr) [3] | 5,134 | 82,000 | Brusa. |
| Genj (Ganj, Geunj, Gindj, Guendj) | 5,192 | 36,000 | Bitlis. |
| Gumush-Haneh (Gumush-Khaneh, Gumuch-hane, Gemush-Khana). | 2,161 | 72,000 | Trebizond. |
| Hakiari (Hakkiari, Hekkieri, Hekkiari) | 6,750 | 47,000 | Angora. |
| Itch-Il (Icheel, Ichil, Ichill, Itsch-Ili, Itchele, Ishil) | 4,932 | 57,000 | Kastamuni. |
| Izmid (Ismid) | 3,719 | 16,000 | |
| Janik (Djanik) | 2,680 | 97,000 | |
| | | | Van. |
| Jebel-Bereket (Jebel-i-Bereket, Djebel-i-Bereket) | 2,161 | 37,000 | Adana. |
| Kaisaria (Caesarea, Kaisarije, Kaisariyeh) | 3,411 | 169,000 | Izmid. |
| Kangri (Changri, Gangra, Kangheri, Kiankary, Kiangri, Kiengeri, Tchangry, Tschangri, Tshangri). [4] | 3,042 | 106,000 | Trebizond: Sanjak of Samsun (Samsoun). |
| | | | Adana. |
| Kara-Hissar-Sharki (Kara-Hissar, Kara-Hissar-Charki, Shebin-Kara-Hissar). | 1,815 | 56,000 | Sivas. |
| Kars (Russian Armenia) | 3,469 | 35,000 | (Acquired.) |
| Kastamuni (Kastamoni, Castamouni) [4] | 5,278 | 21,000 | Kastamuni. |
| Kerasund (Kereson, Kerassund, Kiresun, Kerasunt, etc.). | 419 | 108,000 | Trebizond. |
| Kir-Shehir (Kershehr, Kir-Cheir) [5] | 2,596 | 87,000 | Angora. |
| Konia (Konieh) | 18,261 | 290,000 | Konia. |
| Kozan (Khozan, Kosan) | 3,634 | 37,000 | Adana. |
| Kutahia (Kutaya, Kutaia, Kutahieh, Kutahja) | 4,759 | 151,000 | Brusa. |
| Lazistan | 1,815 | 83,000 | Trebizond. |
| Malatia | 5,969 | 121,000 | Mamuret-ul-Aziz. |
| Mamuret-ul-Aziz (Ma'amouret-ul-Aziz) | 3,030 | 51,000 | Do. |
| Marash (Marach) | 3,980 | 86,000 | Aleppo (now detached). |
| Mardin (Marden) | 5,976 | 95,000 | Diarbekir. |
| Mentesheh (Menteche, Mentesh) | 5,276 | 92,000 | Smyrna. |
| Mersina (Mersin, Mersine) [1] | 2,076 | 178,000 | Adana. |
| Mush (Mouch) [6] | 3,269 | 9,000 | Bitlis. |
| Nigdeh (Nigde, Nikde) | 3,288 | 95,000 | Konia. |
| Ordu (Ordou) | 1,296 | 116,000 | Trebizond. |
| Saerd (Saird, Sairt, Seirt, Sert) [7] | 3,550 | 45,000 | Bitlis. |
| Saruhan (Sarukhan, Saruchan, Sarouhan) | 5,534 | 209,000 | Smyrna. |
| Severek (Sewerek, Siverek Suverek) | 2,080 | 32,000 | Diarbekir. |
| Sinop (Sinob, Sinope, Sinub, Sinup) | 2,250 | 88,000 | Kastamuni. |
| Sivas | 10,646 | 200,000 | Sivas. |
| Smyrna (Izmir, Smyrne) [1] | 4,413 | 204,000 | Smyrna. |
| Sparta (Isbarta, Isparta) | 3,548 | 77,000 | Konia: Sanjak of Hamid (Hamed). |
| Tokat | 5,019 | 138,000 | Sivas. |
| Trebizond (Trapezus, Tarabazun, Tirabzon, Trapezunt). | 2,596 | 213,000 | Trebizond. |
| Urfa (Orfa, Ourfa, Orfah, Urfah) | 7,875 | 79,000 | Aleppo (now detached). |
| Van | 6,838 | 20,000 | Van. |
| Yozgad (Jozgad, Yuzgat) | 4,413 | 147,000 | Angora: Sanjak of Yozgad (formerly Bozuk). |
| Zunguldak (Songuldak, Zonguldak) | 2,161 | 100,000 | Kastamuni: Part of Sanjak of Bolu. |
| Total | 273,808 | 6,192,000 | |

[1] Spelling in accordance with decisions of the United States Geographic Board.
[3] Pronounced Es-kee-shay-heer.
[4] Spelling as adopted by the Department of State.
[5] Pronounced Keer-shay-heer.
[6] Pronounced with u as in "rule."
[7] Pronounced Se-ert, with both e's as in "men."

NOTE.—With the exceptions noted, all spellings are those recommended by Mr. Alfred Abrevaya, clerk in the consulate general at Constantinople. Pronunciations tend to accent the final syllable; vowels take the continental pronunciation, consonants the English.

## PRINCIPAL CITIES

### SMYRNA

Up to 1914 Smyrna, in the Vilayet of Smyrna and facing the Aegean Sea, was the leading place of export of the Ottoman Empire, its location as the port nearest to the Occident and its railway connections with the interior giving it an advantage over Constantinople in the field of export trade. Incidental to the driving out of

Digitized by Google

the Greeks in 1922 the greater part of the city was destroyed by a fire of officially undetermined origin. Its population prior to this catastrophe was estimated at 225,000, but to-day it does not number more than 98,000. Smyrna has a well-protected and fairly good harbor, and is connected by rail with Afion-Kara-Hissar, on the Anatolian Railway; with Panderma, on the Sea of Marmora; and with Egerdir, on the interior lake of the same name, at the terminus of the Smyrna-Aidin Railway. Under the new planning scheme adopted by the municipality for its reconstruction, more space will be given to streets, public squares, and parks. A number of replacement cottages in the city and one or two new suburban villages for refugees have been built by the Ministry of Reconstruction.

The surrounding region is rich in mineral and forest resources that are still largely unexploited, and until recently it also produced large quantities of figs, opium, valonia, tobacco, and raisins. Although production has been considerably reduced since 1922 by the ravages of the Turko-Greek War and prosperity temporarily eclipsed, there is at the present time every indication of a rapid recovery.

### BRUSA

Brusa, in the Vilayet of Brusa, at the foot of the Mysian Olympus and some 90 kilometers south of Constantinople, is the Prusa of the ancients, having been founded in 185 B. C. by Prusias II, king of Bithynia. It is the principal center of silk production in Turkey and its chief industry is silk spinning. It is also a watering resort of more than local fame; its hot springs, where Roman noblemen of old used to take their "cures," possess qualities which are pronounced unsurpassed. The city is connected by narrow-guage railway with Mudania, a small port on the Sea of Marmora, which has a daily steamer service to and from Constantinople. The population is estimated at 64,000. Like other cities in western Turkey in Asia it is still suffering commercially from the devastation occasioned by the late Turko-Greek War, although in its case the devastation affected the outlying agricultural areas rather than the city itself.

### ANGORA

Angora (Enguri in Turkish, ancient Ancyra), the capital of Turkey since 1920, lies in west-central Anatolia at the eastern terminus of the Anatolian Railway. Its present population is believed to be approximately 35,000. The city was founded by the Phrygians about the middle of the seventh century B. C., and four centuries later was the capital of Galatia.

Its commercial importance at the present time is relatively insignificant, although the vicinity is noted for its goats, cats, and bees. It appears to be the policy of the Turkish Government to develop the city along the lines of an administrative center like Washington, rather than along commercial lines. However, the completion of the Angora-Sivas-Samsun Railway, already under construction, can not fail to produce its economic effect on the place.

As a seat of government, although the severe winters and summers and the malarial surroundings do not render it ideal, these are not insuperable obstacles; and Angora possesses the very impor-

Digitized by Google

tant advantage of a central location that is at the same time reasonably accessible to the outside world, and a purely nationalistic setting in contradistinction from the cosmopolitan atmosphere of Constantinople.

To the degree that meager funds have permitted, the Government and municipality have been trying to ameliorate the primitive accommodations and the very severe housing shortage in Angora. The National Assembly, in addition to erecting new buildings for itself and for the Ministries of Finance and Post and Telegraph, has loaned approximately £T2,000,000 (above $1,000,000) to the city of Angora for improvements, including the purchase and resale of land for a new quarter, the erection of a large hotel and of 300 houses to be completed by fall of 1925, the installation of an electric light and power plant, and the planning of a 35-kilometer street railway system.

Of equal importance are the efforts on the part of the Ministry of Health to institute a campaign against the prevailing malaria. A small appropriation has been obtained from the National Assembly, and efforts are on foot to secure cooperation from certain international bodies interested in medical and sanitary betterment.

### ADANA

Adana is situated in the Cilician Plain on the right bank of the Seihan River, about 65 kilometers northeast of the port of Mersina, with which it is connected by rail from the main line of the Bagdad Railway. It is the capital of one of the most fertile regions in Turkey, which produces cotton, rice, wool, cereals, and sugar in abundance. The city, consequently, is an important distributing center for agricultural machinery and other manufactured products. Although the surrounding territory was the scene of destructive warfare during the period of the French occupation, it has recovered economically more rapidly than any other part of Turkey, and is to-day the most attractive market in the country for foreign products. Its importance is likely to be enhanced by improvement of the harbor of Mersina, which at present is not much better than an open roadstead that offers but scant protection to ships in bad weather. The estimated population of Adana is 64,000.

### BLACK SEA PORTS

*Trebizond* (*ancient Trapezus*).—This city, on the Black Sea, is the preponderant port of northern Turkey in Asia and the principal point of transit for the trade of eastern Anatolia. Until the outbreak of the World War it was an important transit market for Persian carpets, but since 1919 these carpets have been exported principally through Bagdad. The trade of Trebizond since then has been confined to the products of the immediate district, consisting chiefly of walnuts, hazelnuts, tobacco, eggs, and beans. The city is hampered by lack of rail connection with the interior, and is likely to be seriously affected by the development of the port of Samsun when the Angora-Sivas-Samsun Railway is completed. Nevertheless, it has a considerable tributary area and a trade distinctively its own, and its importance may normally be expected to revive with the

Digitized by Google

extension of the country's railway system to the northeastern sections of Anatolia. Most recent estimates show the population of Trebizond to be about 26,000.

*Samsun* (*ancient Amisus*).—Samsun is the chief port of the great Turkish tobacco region that centers around Amasia, Tokat, Sivas, and Bafra, and is an important market for the direct exportation of tobacco to Europe and the United States, as well as for the exportation of the animal and agricultural products of a large tributary region. It has been selected as the coastal terminus of the Angora-Sivas-Samsun Railway now under construction, and its importance is consequently very much on the ascent. Already an important port of call for ships in the Black Sea trade, it is expected to expand rapidly as a center of commerce. Samsun has a population of about 20,000.

### CITIES OF CENTRAL AND SOUTHERN ANATOLIA

*Sivas.*—Occupying a strategic trade position, about 125 miles from the Black Sea port of Samsun, Sivas is on the great route leading southward from the coast. In 1919 it became the center of the Turkish Nationalist movement before the headquarters of that movement were transferred to Angora, and the Congress of Sivas in recent Turkish history has a significance akin to that of the Continental Congress of American Revolutionary days. Sivas is eventually to be connected by rail with both Angora and Samsun, work on the construction of the railroad having already commenced. The importance of this trade center, hitherto largely neglected, may be expected to increase. Its population is believed to be in the neighborhood of 31,000.

*Kaisaria* (*Caesarea Mazaca*).—This ancient capital of the kings of Cappadocia, who called it Mazaca, is of commercial interest as a market for hides, wool, guts, agricultural produce, and native cloth. It is capable of great development under the projected transportation facilities, but at present is accessible only by road. Estimates place the population at 49,000.

*Konia* (*ancient Iconium*).—The city of Konia, where the Anatolian Railway and the Bagdad Railway become continuous, is famous as the former capital of the empire of the Seljukian Turks. It is now an important market for Turkish carpets and native cloth, and is connected by rail with the export ports of Constantinople, Smyrna, and Mersina. Its population numbers about 70,000.

*Ghazi-Aintab.*—Formerly Aintab, the city was christened "Ghazi" (victorious) by the present Grand National Assembly of Turkey, because of the heroic resistance it offered to the French in 1919 and 1920. It stands on a branch of the Euphrates, about 65 miles north of Aleppo, and has a population of some 48,000. It was the seat of an American college and hospital, but the college is now closed.

### CITIES OF EASTERN ANATOLIA

*Erzerum.*—Located in the extreme east of Anatolia, Erzerum is connected with Alexandropol in the Caucasus by a railway line built by the Russians for military purposes. It is also a station on the trade route from Trebizond to northwestern Persia, but is not itself a commercial center of any note. The population is given as 20,000.

Digitized by Google

*Diarbekir.*—This capital of the Province of the same name is located in southeastern Anatolia on the Tigris, midway between Ghazi-Aintab and Lake Van. It stands on the roads that lead westward to the Mediteranean, northward to the Black Sea, and southward through Mosul to Bagdad. Its commercial importance at present is largely local, but it is expected to profit commercially if the proposed railway is constructed between the Argana copper mine in its vicinity and the Bagdad Railway. Its population is approximately 25,000.

### MINOR CITIES

Mention may also be made of Urfa, on the Syrian border 125 kilometers east of Ghazi-Aintab, with a population of 42,000; Marash, 70 kilometers northwest of Ghazi-Aintab, with a population of 23,000; Afion-Kara-Hissar, midway between Brusa and Konia and the center of Turkish opium production, with a population of 23,000; Eski-Shehir, the junction of the Anatolian railroad branching eastward to Angora and southward to Konia, with a population of 23,000; Amasia, 75 kilometers southwest of Samsun and renowned for its apples and tobacco, with a population of 21,000; Adalia, a promising Mediterranean seaport northwest of the island of Cyprus, with a population of 20,000; and Mersina, the port and coastal railway terminus of southern Anatolia, 60 kilometers southwest of Adana, with a population yet less than 20,000.

Digitized by Google

# SOCIAL CONDITIONS

## POPULATION

By J. Loder Park, American Vice Consul, Constantinople

Anatolia—of which Turkish Thrace is now only a minor European continuation—has finally emerged from a long and turbulent history as the recognized home of the Turkish people. By sheer accident of position it has been at once the commercial route to the East and the natural pathway for the great migrations from the East—the land-bridge for the mingled hordes of the conquerors of the past, who came to conquer and to pass on, but who seldom went much farther.

### HETEROGENEOUS ELEMENTS

Turkey is a refuge alike for the Jews fleeing from the Spanish Inquisition, the Circassians fleeing from Russian tyranny, the Pomaks fleeing from Christian persecution, and in our own time the "White Russians" fleeing from the revolution. Recently its commercial potentialities have captivated the imagination of the West, so that for more than a century it has been drawing, holding, and absorbing enterprising foreigners from Europe and even from America. Some of these have settled with their families and intermarried with the native peoples until they have become the so-called Levantines who, although retaining their foreign allegiance, have gradually crystalized into Anatolians with the rest.

Amidst this conglomeration of elements the Turk has maintained the ascendancy for upwards of 500 years, and his predominance will continue so long as he exists as a race capable of resisting invaders.

The population of Turkey after the war was somewhat over 9,500,000. From this must be deducted 1,500,000 Anatolian Greeks and practically all of the Armenians, numbering some 500,000, who survived the deportations of the Great War; to it should be added the Turks repatriated from Western Thrace. The emigration and disappearance of these elements began with the rise of the new Turkish nationalist movement and reached a precipitous climax with the collapse in September, 1922, of the Greek military invasion of Asia Minor. Their total elimination, except in Constantinople, has well-nigh been achieved, and the "minorities" question has practically ceased to exist.

### CLASSIFICATION

Autochthonous classification of the various elements constituting the population of Turkey at the present time presents many difficulties, and racial antecedents are confusingly interlaced. It has been found convenient to follow religious demarcation, since this is the criterion followed by the people themselves.



Digitized by Google

According to religion, therefore, the population falls into three major groups, namely, Moslem, Christian, and Jewish. The Moslems consist of Turks, Kurds, Circassians, Albanians, Lazes, Pomaks, Turkomans, Yuruks, Rumelians, Cretans, and Tahtajis. Some of these are Moslem in name only—for example, the Tahtajis; and the Albanians are partly Christians. The Turks, numbering about 4,000,000, constitute more than half of the total population.

## MOSLEM PEOPLES

### THE TURK

Although the appellation "Turk" is universally applied to the principal race, it is an arresting fact that these people belong to no distinct racial category. Their ancestors came out of Indo-China in the twelfth century, mingled with Tartars and, trekking westward, settled in Anatolia. There their numbers were gradually increased by further immigrating Mongols, historically best known as Seljuk Turks.

When the Seljukian power declined another tribe of Turks forged ahead under their leader Osman and entered on a career of conquest that ultimately led to the gates of Vienna; after having subjugated sections of the Balkans, they extended their sway over the whole of Anatolia. Thus was established the Ottoman dynasty. Osman was the first Sultan, and Turks of to-day still call themselves "Osmanli," or followers of Osman. "Ottoman" is the Hellenic corruption of "Othman," which is the Arabs' rendering of "Osman."

*Racial characteristics.*—Racially speaking, the Turk is a mixture of many elements, little of the initial Turanian blood remaining in his veins. He has freely intermarried with all of his neighbors and tributaries, regardless of religion, so that he now represents a composite of the original Turanian; the Albanian converted by the sword; the Circassian women desired for their beauty; the Christian boys commandeered for the crack army corps called Janizaries; the Arab, Greek, and Armenian women seized for household slaves; the negroes from Egypt, the Sudan and Abyssinia; the Poles made homeless by the partition of their country; the Bulgarians; and the Serbs. Intermarriage was entirely indiscriminate, and of late years has included some western Europeans and a few Americans. In physique the Turk has ultimately become European.

*Economic position.*—The Turk, who thus defies analysis as a race, is equally interesting as an individual. He is sober, physically clean, and self-respecting; he is fatalistic and improvident. As a business man he is trustworthy but inexperienced. He has never in the past resorted to trading for his livelihood, but has confined his expenditures of effort to administrative and military activities and to agricultural pursuits. However, the wholesale abolition of Government offices by the present Republican régime, the prevailing economic distress in Turkey as a whole, and the forced or voluntary departure of the Greek, Armenian, and Jewish producers and traders are driving increasing numbers of Turks into the business world.

### THE KURD

The Kurds are Turanians, merged into Aryans, who have for many centuries occupied the mountainous region north of Syria and

Digitized by Google

Iraq. Though nomadic, their movements have been confined to that section of eastern Turkey roughly delineated on the north by Mount Ararat, Erzerum, and Erzinjan; on the west by the upper courses of the Euphrates and Tigris; and on the south and east by the zone spreading eastward across the Persian frontier to Lake Urumia and Kermanshah. The term "Kurdistan" is applied somewhat loosely to this area and often implies additional territory to the northwest, overlapping the so-called Armenian plateau as well as the Chaldean plains to the south. Nor is the country described entirely populated by Kurds, for Arabs, Assyrians, Armenians, and Persians are plentifully interspersed.

*Racial characteristics.*—The language of these people is essentially a Persian dialect, yet a distinct language in itself, with many surviving words of Turanian origin. On the borders of their homeland there are several corruptions of the Kurdish language, notably the Zaza and the Guran.

Physically, the majority of the Kurds are of medium stature, dark, black-eyed, coarse-haired, slender, and lithe. Although Mohammedans, their religion has never been made to serve as a political bond. Their women are vigorous, strong and agile, slender, and exceedingly graceful. They ride and shoot as well as the men, and furnish an example of undegenerate and untrammeled feminine beauty seen nowhere among the western races.

*Economic position.*—The Kurds are mainly pastoral, their wealth and sustenance being derived chiefly from sheep and goats. They fall into three classes, the nomadic, the seminomadic, and the sedentary, the last named being objects of derision on the part of their more restless kinsmen. Added to these are the increasing numbers who are finding their way to the cities and even to foreign countries, as rough laborers.

No census has ever been taken of the Kurds—a manifest impossibility; but their number in Turkey is estimated at 1,500,000. The total number in Persia, Russia, America, and the rest of the world is supposed not to pass the same figures.

### THE CIRCASSIAN

The Circassians are a seminomadic race of pure-blooded Caucasian Mohammedans, who emigrated from Russia to avoid oppression and gradually became distributed throughout the country.

They are pastoral, moving with their flocks in summer and settling in villages in winter. Circassian women are noted for their comeliness.

### THE LAZ

The Mohammedan Lazes, racially related to the Christian Georgians of Transcaucasia, are scattered throughout the northeastern quarter of Anatolia, particularly along the Black Sea littoral east of Trebizond. They are boatmen, fishermen, lumbermen, farm laborers, miners, and shepherds.

Their language is Greek and they speak Turkish, but, according to ethnologists, they are of pure blood, with features closely resembling their distant ancestors.

Digitized by Google

### THE POMAK

There are still a few Macedonian Pomaks (ancient Thracians), wholly European in character, within the limits of the Turkish Republic. Formerly independent Christians, who believed in the inner divinity of man, rejected the worship or adoration of icons, and regarded the rites of the existing Christian church as remnants of paganism, they adopted Islam voluntarily as early as 1415, in order to escape the persecution of the Roman and Orthodox churches.

They speak their own language, which shows a strong Slavic influence, and are generally considered peaceful, home-loving, cordial to strangers, and industrious.

### THE TURKOMAN

The Turkomans, preserving their old Seljuk type, live independently as nomads in the southern extremity of the Armeno-Kurdish table-land. They have their own religion, which closely resembles the Mohammedan; but, like the Persian Shiism, this creed adheres to the acceptance of Ali, the son-in-law of Mohammed, as their prophet.

The Turkomans have their own tribal laws, and their priest is their court of appeal. Their occupation is purely pastoral. Tenacious race pride probably accounts for their purity of blood.

### THE YURUK

The Yuruks are also nomads or, more probably, bandits, although certain of their tribes are noted for relative honesty. They live for the most part in the highland fastnesses of central Anatolia, roughly along a line drawn from Smyrna to Erzerum.

Not sufficiently industrious in peaceful pursuits to support themselves, they rely on plundering for a livelihood. Like the Turkomans, the Yuruks retain the physical characteristics of the early Seljuk invaders. Unlike the modern Turk, they have kept their race comparatively pure, and, also unlike the Turk, they have lost none of their ancestral savagery.

### THE TAHTAJI

The Tahtajis, or "board makers," are of uncertain origin. They are essentially nomadic, impetus for movement arising chiefly from their clandestine lumbering industry, practiced in the Adana section of the Taurus Mountains and eastward.

An offshoot of these, or at least a very similar race, is the gipsy found throughout Turkey, engaged in the same clandestine activities with regard to settled agriculture that the Tahtajis carry on with regard to lumbering.

## CHRISTIAN PEOPLES

### THE ALBANIAN

Ever since Albania was overrun and annexed to the Turkish dominions in the fifteenth century the Albanians have played an unusually prominent part in the affairs of Turkey. They have been particularly noted for their administrative and military capacity and

Digitized by Google

have furnished the country its wisest ministers and ablest generals. Albanian origin, however remote, is still pointed to in Turkey with utmost pride, even where all Albanian identity has been lost by generations of intermarriage.

Although there are now estimated to be 300,000 Albanians in the country, it must be admitted that the claims of many of these to Albanian blood are obscure. They are found in all walks of life, from laborers to cabinet ministers, and have in general discarded their own tongue for the Turkish.

### THE ARMENIAN

From the seventh century before Christ until after the fall of Constantinople the Armenians maintained a strong kingdom of their own in northeastern Anatolia and Transcaucasia. This region is often referred to for convenience as Anatolian and Russian Armenia. Mohammed the Conqueror granted them certain privileges and immunities, withheld from less advanced subject tribes. Since that time they have clung to their religion, language, and racial identity with astonishing tenacity.

*Racial characteristics.*—Whether the Armenians are Aryans or of the Semitic race, they possess the intellect of the European, the physique of the Persian and the Kurd, with a goodly admixture of Jewish thrift. Forced marriage has failed to tarnish their racial type, or persecution to effect the renunciation of their religion, language, or folklore. They are a prolific race, versatile, and resourceful.

Their pre-war population of 1,500,000 in Turkey has been reduced by deportation and emigration to a few small communities, of which the principal are found in Constantinople.

### THE ANATOLIAN GREEK

Most of the so-called Greeks of Anatolia are Greek in culture, language, and tradition more conspicuously than in race. They are Anatolians, of the soil, descended from the Christian peoples of the Byzantine Empire and Hellenized by the culture of that period.

The Anatolian Greeks are mentally stable. They are not gifted with Hellenic temperament and versatility. Like the Armenians, they are producers as well as traders. They are rug weavers, farmers, silk growers, and were until recently the principal producers and exporters of figs and raisins. In business they are clever and well practiced in modern methods. But with the exchange of populations between Turkey and Greece they have ceased to exist, so far as Turkey is concerned, except in Constantinople.

### THE ASSYRIAN

The name Assyrian is generally accepted as the correct one. They are also called Arameans, Nestorians, Chaldeans, and Syro-Chaldeans; but Layard's excavations at Nineveh have revealed the authenticity of the name Assyrian. The habitat of the Assyrians has varied but little throughout their known history. In Turkey they are now found east and southeast of Lake Van.

The number is indeterminate but can probably be reckoned at 95,000, or about one-half of all the Assyrians that remain in the world. They are not without a goodly amount of culture and edu-

Digitized by Google

tion, and are pronounced by travelers among them more intelligent and amenable to civilizing influences than the Kurds, Arabs, and Persians among whom they live.

## JEWISH PEOPLES

### THE JEW

The Jews in Turkey fall into three classes—the Sephardim (Spanish), the Ashkenazim (Polish), and the Karaites (outlawed). The first two groups are orthodox in faith, and differ one from the other only in their countries of origin, their language, and their physical appearance. The third group, very few in numbers and rapidly disappearing, believes in the Mosaic religion but practices different rites.

*Numbers and languages.*—Under the Empire, Turkish Jews numbered some 400,000; but as a result of emigration, principally to Europe and North and South America, about 200,000 are now left, of whom 75,000 live in Constantinople. The Sephardic, or Spanish and Portuguese, Jews are in a majority by over 90 per cent and have absorbed all the others with the exception of the almost nonexistent Karaite group and some 10,000 of the Ashkenazic group.

The mother tongue of the Sephardic Jew is old Castilian, occasionally mixed with Turkish words and Hebraic expressions. The Ashkenazim speak German or Yiddish, and the Karaites speak Greek, having been Hellenized under the Byzantine Empire. All Levantine Jews, however, speak more than one modern language.

*Economic position.*—Turkish Jews have carved out for themselves a place in every branch of the national life and are found as traders, bankers, professional men, office workers, and even laborers. In the former Ottoman Empire they occupied important governmental positions, but the tendency of the new nationalism, ushered in by the Republic, has been to put them in the same relative position as other non-Moslems, although they have never been persecuted in Turkey.

They are well organized and maintain their own schools, hospitals, orphan asylums, synagogues, and other communal institutions, although they have not attained the same level of cultural and material development as their brethren of Europe and America. They are conservative in their habits of thought and enjoy a very high reputation for honesty.

### THE DONMEH

An interesting side issue in connection with the study of the Jews is afforded by the Donmehs (Dolmachs, Dormehs, Deunmehs), or descendants of the Jews converted to Islam during the second half of the seventeenth century. The original Donmehs (apostates from Talmudic Judaism) were the followers of a self-styled Messiah, Sabetai Sevi, a Jew born in Smyrna in 1629. When his movement had reached some proportions he was ordered by Sultan Mohammed IV to choose between death and conversion to Islam. He accepted the latter alternative, and many of his followers did likewise.

Most of Sevi's adepts hold forth in Saloniki, no longer a Turkish dependency; but they are also found in Constantinople and other parts of Turkey. They number some 10,000 and intermarry only

Digitized by Google

among themselves. They openly call themselves Moslems, but are said to secretly profess the Jewish religion, although the Jews officially exclude them.

Donmehs are generally of liberal tendencies and occupy high positions in government and trade, an important part of all business known as Moslem being in their hands. They took a distinguished part in the Young Turk revolution of 1908.

## MODERN CULTURAL ACTIVITIES

By Gardiner Howland Shaw, First Secretary of Embassy, Constantinople

### EDUCATION

Nationalism, westernization, and secularization are the principal ideals in all phases of present-day Turkish life. These ideals have nowhere had more important effects than in the various systems of education which exist in Turkey to-day. In fact, education in Turkey is passing through a period of transition, and it is too early to do more than point out tendencies and indicate the existence of problems.

#### GOVERNMENT CONTROL

The Turkish educational system is essentially a state affair. Private initiative in educational matters has for economic and other reasons peculiar to Turkey been almost altogether lacking, with the result that there are very few private Turkish educational institutions. The Turkish educational system has at its head a cabinet officer, the Minister of Public Instruction.

Secondary education is provided for in the approximately 150 secondary schools, or lycées, in Turkey. For elementary instruction there are several primary schools in each of the 72 Vilayets into which Turkey is divided for purposes of local government. Higher education is provided at the University of Stambul, in Constantinople, through its faculties of letters, law, medicine, and theology.

#### FINANCIAL SUPPORT

That education is one of Turkey's chief problems and therefore considered by the President as second only to transportation in the pressing needs of the new Republic, may be gathered from the fact furnished by the Ministry of Public Instruction that about 85 per cent of the population is illiterate. In remedy of this condition, special effort is being made to improve the quality of the teachers and to imbue them with modern educational ideals. This is a difficult task, chiefly because of the present financial situation of Turkey.

The budget of the Ministry of Education for the fiscal year 1924–25 provided for an outlay of £T6,877,626 ($3,600,000), and for 1925–26 the net sum of £T7,150,008 (about $3,790,000). The National Assembly, in a further effort to cope with the situation, has authorized local communities to lay a tax upon specific sources of revenue (law No. 616, passed April 13, 1925), to be collected by each muhtar and his council and expended, under the administra-



Digitized by Google

tion of the Ministry of Education, for local primary schools and their necessary buildings, equipment, teachers, inspectors, etc. [Official regulations appear in L'Economiste d'Orient for August 25, 1925.] Teachers in primary schools receive a monthly salary of £T20 ($10) to £T30 ($15); in secondary schools the monthly average is £T50 ($25); and in the university it is £T100 ($50).

### "WESTERNIZING" THE TURKISH SCHOOLS

The ideals of westernization and secularization deserve special emphasis in connection with the Turkish educational system. French influence in cultural and educational matters has always been marked—so much, indeed, that the curriculum in both primary and secondary schools follows closely the French system.

In fact, the Franco-Turkish Lycée of Galata-Serai (Constantinople), founded in 1868 and at which many leading Turkish officials have been educated, has played an important part in the spread of western ideas in Turkey. Recently, however, Anglo-Saxon ideas of education have been gaining ground.

Among other "westernizing" tendencies was the proposal that at the opening of the school year 1924–25 the coeducational system should be adopted in all Turkish secondary schools, with a view to modifying still further the social order heretofore derived from the Moslem religion.

"Secularization" was made effective in March, 1924, after the abolition of the Caliphate, when the Government abolished all "medressés" throughout Turkey. These were essentially religious schools, engaged primarily in giving instruction in the language and interpretation of the Koran.

### "NATIONALIZING" THE COMMUNITY SCHOOLS

It should be recalled that heretofore the non-Moslem communities in Turkey—Greek, Armenian, and Jewish—have been virtually autonomous politico-religious entities existing within the Ottoman Empire. From time immemorial these communities have maintained school systems of their own that have been run as integral parts of the religious organization of their respective communities. Instruction as a rule is given in the language of the community or in French, and is in accordance with the community's ideals and religious convictions.

The "minority" clauses of the Lausanne treaty of July 24, 1923, provide for the continuance of the community schools; but in view of the fact that all nonreligious authority has been taken from the religious heads of the non-Moslem communities, the schools henceforth are to be administrated exclusively by a committee of laymen, elected by each community. The community schools are now required to employ Turkish teachers of language, history, and geography, and are subject to Government supervision and inspection.

As reliable statistics concerning "community" schools in Turkey as are available show that in Constantinople and vicinity there are 62 Greek schools, with 14,812 pupils; 47 Armenian schools, with 7,452 pupils; and 20 Jewish schools, with 5,000 to 6,000

Digitized by Google

pupils. Outside of Constantinople there are 4 Armenian schools and 16 Jewish schools; no Greek schools are accounted for, and no statistics as to pupils are given.

### FOREIGN SCHOOLS

Besides Turkish and "community" schools, there are in Turkey a number of schools established and maintained by foreigners. These were founded either to provide an education for the children of foreign residents or for missionary purposes. The first of these reasons played a part in the earlier history of the French and especially of the Italian schools; the second reason has been of importance in the development of the American schools.

In recent years, however, the religious aspect of the foreign schools has been more and more subordinated until at the present time a broad educational ideal, including a proper emphasis upon moral training, has largely taken the place of the missionary ideal in the stricter sense of the word.

### AMERICAN INSTITUTIONS

In the American schools, close attention is being given to education along technical lines, especially in agriculture and engineering. It is realized that this, rather than education of a more intellectual and cultural sort, is what is particularly needed in present-day Turkey.

The scope and activities of American educational institutions in Turkey may be gathered from the following statistics of students registered for the school year 1923–24:

| | Students |
|---|---|
| Robert College (college and academy) | 471 (18 nationalities). |
| Constantinople College for Girls (college and preparatory department) | 311 (16 nationalities). |

The following schools are maintained by the American Board of Commissioners for Foreign Missions:

| | Students |
|---|---|
| Adana | 121 |
| Brusa Girls' Boarding School | 140 |
| Marsivan | 11 |
| Smyrna: | |
| Geuz-Tepeh | 81 |
| International College | 118 |
| Constantinople: | |
| Gedik Pasha | 230 |
| Geuz-Tepeh | 66 |
| Language School | 2 |
| School of Religion | 16 |
| Skutari | 263 |

## LANGUAGE AND LITERATURE

The Turkish language is the original dialect of the conquerors, remarkable for its simplicity and lack of irregularities, enriched by profuse borrowing from Persian and Arabic with here and there thrown in a word from the Greek, the Italian, or the French, and the whole welded together by the efforts of the literatures to produce an expressive vehicle of human thought which is very characteristic of the history of the land of its development—Anatolia, a land where

Digitized by Google

discordant elements have met, clashed, and been reduced, since the dawn of history.

Turkish literature is commonly divided into two periods, the old school and the modern school. The former covers the period from the time when the Ottomans succeeded the Seljuks, in about 1300, until the accession to the throne of Sultan Abdul-Aziz, in 1861.

### OLD SCHOOL

The era covering the old school of Turkish writers is subdivided into a preclassical period (1300–1520), a classical period (1520–1730), and a postclassical period (1730–1861). The preclassical writers were not Ottoman Turks, but Seljuks, and the period is characterized by imitation of the Persian in Persian; few attempts had been made to employ the as yet uncouth Turkish.

The classical period was also strongly under Persian influence, although the conquest of Bagdad, Syria, and Egypt introduced acquaintance with the Arabic and brought Arabic writers to the courts of the Sultans. It was during this period that the first printing press was introduced into Turkey (1728) and the first book printed (a Turkish translation of an Arabic dictionary).

During the postclassical period, contact was becoming ever closer with the Occident, and the influence of the West supplanted that of the East. During this period attempts were more and more frequent to shake off the Persian and Arabic and make use of the spoken language of the country, which had gradually come into greater prominence through the efforts of the prose writers.

### MODERN SCHOOL

The modern period has been characterized by a marked French influence. Beginning about 1859, Turkish came into general use as the language of both prose and poetry, and its development has been so rapid that it is now the only language employed by living writers. The development along distinctively Turkish lines has been particularly rapid since 1908, when the censorship imposed by Abd-ul-Hamid was removed. Since then the literature has progressed to a point where original compositions of considerable merit are being currently produced.

## ART AND SCIENCE

### ARCHITECTURE

The history of Turkish architecture is similar to that of Turkish literature. The earliest architects were those of the Konia school—Seljuks, whose designs were principally copies from the Persians. These were followed by the Brusa school, which was strongly influenced by the Byzantines.

When the capital was removed from Brusa to Adrianople and thence to Constantinople, the Byzantine types became more and more pronounced. After the capture of Constantinople the Mosque of St. Sophia (formerly a Christian cathedral) became the model for Turkish religious edifices, and has so remained largely down to the present time. The Greeks have remained the chief builders of the country.

Digitized by Google

FIG. 3.—CONSTANTINOPLE: THE TOWERS ON THE BOSPORUS AND ROBERT COLLEGE

Digitized by Google

FIG. 4.—CONSTANTINOPLE: INTERIOR OF ST. SOPHIA

Digitized by Google

In recent years, the tendency has been to imitate European architecture and at the same time to preserve an oriental setting. The result has an appearance resembling the Moorish.

### PAINTING

Turkish paintings also display foreign influence and date from only a half century ago when Hamdi Bey, subsequently director of the Constantinople Art Museum, went to Paris to study under Gérôme. He showed considerable talent and on his return established the first art school in Turkey, with instructors brought from Europe.

In a relatively short time it became possible to dispense with the foreign instructors and substitute native instructors. Under them the school has continuously progressed, until there now exists a Turkish painters' association composed of graduates of this school. For the past nine years the association has held an annual exhibition; at the 1924 display, 55 painters submitted 290 paintings.

### MUSIC

To westerners, the native Turkish melodies sound strangely weird and appealing; those of a martial nature, especially, possess the power of deeply stirring human emotions.

The Turks favor instrumental music rather than vocal. The Government orchestra, under the direction of Zeki Bey, has acquired an enviable reputation for the excellence of its performances, and its repertory includes a large selection of occidental masterpieces.

### SCIENCE

The development of science in Turkey has been limited, and although the Turks have shown themselves competent in the application of scientific principles, notably in the field of medicine and mathematics, their knowledge of the sciences has been derived chiefly from the West.

## EMANCIPATION OF TURKISH WOMEN

The social laws and customs, which until some 15 years ago strictly regulated the Turkish woman's life, were of Persian and Byzantine origin. When the Ottoman Turks, building on the ruins of Byzantine and Seljukian states, developed their social fabric, they took over a great number of Byzantine and Persian customs. The Byzantine gynæceum became the Turkish harem, and the organization of the palace of the Sultan was similar to that of the "Basileus."

### FORMER FAMILY LIFE

Until recently there were three classes of women in the Turkish household—the legal wife, the concubine, and the slave—one or all of which might have been found living in the haremlik. Every Turkish house was divided into two parts, "haremlik" and "selamlik," which were either separate houses, separate apartments, or separate rooms, according to the social position of the husband. In one part of the house lived the women, in the other the men. They

Digitized by Google

never ate together, and when visitors were in the house the husband and wife did not meet. A strict discipline reigned in the home, and although the father was absolute lord over his family, the children were usually taught to respect and obey their mother.

For the well-to-do man, woman was no more than a toy to be discarded at will; for the poor, she was a servant to work in the house and to till the soil, besides rearing children. The education of Turkish women was much neglected and, except among the higher classes where governesses, mostly from abroad, taught reading, writing, music, and foreign languages, the great majority were illiterate. Needless to say, women took no part in the affairs of the community, but lived in a small world limited by the walls of the "seraglio."

### EMANCIPATING INFLUENCES

It was not until the second half of the eighteenth century that, through contact with the Occident, European civilization, especially the French, became known in Turkey. As a result of this contact, the condition of the Turkish woman was improved. During the reign of Abd-ul-Hamid II, the first normal school for girls was established, and primary education for women began to receive attention. This elementary knowledge was destined to bear fruit and, when the revolution of 1908 occurred, it found Turkish women ready for emancipation and progress.

During the succeeding 15 years various secondary schools, high schools, and normal schools for women were opened, and women students have been admitted to follow the university courses with men. The national medical school opened its doors to women in 1923, and the law school accepted them as early as 1919. There are now in Turkey several women lawyers. Moreover, schools for nurses and midwives, with excellent theoretical and practical programs, are now in existence.

The past decade and a half, therefore, has seen the Turkish woman make rapid progress and has developed into intelligent leadership such women as Halideh Edib Hanum, the novelist; Fatma Ali Hanum, also a novelist of note; the poetess, Nikiar Hanum; Nezihe Veli Hanum, of the Red Crescent; Saadie Halil Hanum, Majide Besim Hanum, Nakieh Hanum, Halide Hurshid Hanum, Riza Emin Hanum, Hamiet Hulussi Hanum, and others.

### CHANGES IN FAMILY STATUS

A very great improvement in the social and family life of women followed the revolution and the introduction of higher standards of education. It is especially in marriage and divorce, however, that a change for the better is to be noted.

Up to 1908, the Turkish laws, or rather the customs based on a faulty interpretation of the Koran, gave woman no protection as to her matrimonial rights, except theoretically in the matter of property. The husband could divorce his wife, when tired of her, by simply pronouncing the words "I have divorced thee" in the presence of two witnesses. The wife, however, did not enjoy the same privilege. The Young Turks discovered that the Koran allowed the wife to divorce her husband, provided she specified her right to do so during the marriage ceremony.

Digitized by Google

There is now a tendency toward instituting civil marriage, which does not yet exist in Turkey. A bill has been introduced before the National Assembly at Angora, after receiving the approval of the Council of Ministers, which provides for the granting of divorce by courts only; forbids marriage under a certain age; and abolishes polygamy.

The almost total disappearance of polygamy is a fact to be noted. Except in the Provinces or in very old-fashioned circles, the custom of having more than one wife has disappeared, not only for economic reasons but also because of the higher standard of education and home life. The wife is becoming the companion of her husband and of her children, and the old-fashioned relationship of master and slave is now almost a thing of the past.

### SOCIAL AND BUSINESS ACTIVITIES

The activities of the modern Turkish women have spread to other fields than reform in the family. During the war they showed great talent and pluck as nurses, as organizers of relief, and as social workers. They have now numerous organizations with philanthropic, social, intellectual, and even political aims. These organizations were founded and are managed entirely by women. An association has even been founded recently to assist women who desire to go into business or to follow professional careers. It is not uncommon nowadays for Turkish women to participate in commercial enterprises side by side with men.

The heavy veil of some years ago has given place to a much thinner one or has been discarded entirely. The Turkish woman is no longer the "black phantom" described by Pierre Loti, but a very modern woman, conscious of her power and of her rights and eager to go forward toward full independence and opportunity of service.

## PUBLIC HEALTH AND SOCIAL WELFARE

By I. Pierrepont Moffat, First Secretary of Embassy, Constantinople

### PUBLIC HEALTH

#### ADMINISTRATION

The administration of public health in Turkey is confided to a Government department presided over by a cabinet officer. The present Minister, Dr. Refik Bey, is a prominent physician who served during the wars as a ranking medical officer. The sum of £T2,968,-331, or approximately $1,500,000, was voted to the ministry by the Grand National Assembly for the fiscal year ended March 1, 1925, and for the year 1925–26 the net sum of £T4,060,205 (about $2,150,000).

The personnel of the ministry at Angora is small, but the field service throughout the country is of considerable extent. In each "kaza" (county) the ministry maintains a doctor, who is required to treat the poor of the district without fee. This doctor is responsible to the ministry for the sanitary conditions obtaining in his district. In each of the 72 Vilayets a health inspector is maintained.

The ministry maintains four Pasteur institutes, located respectively in Constantinople, Sivas, Diarbekir, and Erzerum, besides five large isolation hospitals in the eastern and southeastern Provinces.

Digitized by Google

It is further planning to establish four model hospitals in Sivas, Angora, Diarbekir, and Erzerum, and 150 dispensaries in the different kazas.

### PHYSICIANS

The execution of the ministry's full program is rendered difficult by the small number of physicians available in Turkey. Even prior to the Great War the total number of qualified doctors did not exceed 2,200, and some 350 of these died during the war. The services of many more were lost through the detachment from Turkey of Iraq (Mesopotamia), Syria, and other parts of the old Ottoman Empire.

Foreigners were formerly permitted to practice medicine in Turkey, and continued to do so until the allied evacuation in 1914. Since then, however, only those who were licensed prior to 1914 have been allowed to exercise their profession.

The education of doctors in Turkey is centered in the School of Medicine, which is a branch of the University of Stambul, established in 1875 and supported by the National Government. It is located in Haidar-Pasha on the Sea of Marmora, directly opposite Constantinople, and occupies a fine structure erected by Sultan Abd-ul-Hamid in 1902 for use as a military medical school. The faculty, embracing professors, assistant professors, and instructors, numbers about 100 members. With the exception of two French professors, all are Turks.

Students in attendance in July, 1924, numbered 450, including 25 women. The institution has been coeducational for two years. Entrance requires a diploma from a secondary school, and the degree of doctor of medicine necessitates a five-year course; in addition, a sixth year as interne in some Turkish hospital is required.

### HOSPITALS AND NURSES

It is difficult to generalize about Turkish hospitals, as their organization and efficiency vary considerably with the locality. The Constantinople hospitals are, on the whole, of high caliber; they are clean, orderly, and well organized, though handicapped by lack of funds for the purchase of most modern equipment.

The most serious shortcomings in ministration to the sick in Turkey is unquestionably the failure to demand scientific training for nurses. As yet, nursing is not viewed as a profession and, until it is, the organization of hospitals and the care of the sick in their homes will be at a serious disadvantage. In a constructive attempt to remedy this situation, the American Hospital at Constantinople has included as a branch and integral portion of its organization a nurses' training school, where about 50 young women of the country are receiving instruction in the fundamentals of nursing.

### AMERICAN ASSISTANCE

American philanthropic activity has always been interested in improving health conditions in Turkey; but, whereas prior to the war there were seven or eight American hospitals functioning, the following three only are now open. In all cases patients are admitted without regard to race or creed.

Digitized by Google

*American Hospital at Constantinople.*—This hospital was founded in 1912 and reorganized in May, 1920. It has a capacity of 180 beds. Patients admitted during 1923 numbered 1,500; patients examined in clinic, 18,244.

*American Hospital at Ghazi-Aintab.*—Founded approximately 50 years ago, this hospital is the property of the American Board of Commissioners for Foreign Missions. It takes both medical and surgical cases, and has a capacity of 100 beds. Half of the plant has been loaned to the Turkish authorities, and is being operated by them as a municipal hospital.

*American Hospital at Adana.*—Founded in 1909, this hospital also is the property of the American Board of Commissioners for Foreign Missions. Both medical and surgical cases are taken. Its capacity is 60 beds.

Other communities, notably the French and the Italian, maintain similar hospitals in Turkey.

### INFECTIOUS DISEASES AND QUARANTINE

The interior of Anatolia is infested by three diseases—malaria, syphilis, and tuberculosis—against which the Government is waging such energetic campaign as meager funds and an ignorant and often hostile population will permit.

The introduction of quinine or "Jesuit's bark," was largely instrumental in reconciling the uneducated people to the usefulness of medicine; but, in spite of its immense value in the treatment of malaria, the prevalence of swamp land and poor drainage offer such ideal breeding conditions for the Anopheles mosquito that the fever remains endemic in numerous places.

There have always been sporadic outbreaks of typhus, cholera, and smallpox, though they have never reached the stage of a national menace.

Nevertheless, the question of quarantine regulations and restrictions assumes a special importance. In Turkey, such regulations date far back into the capitulatory days, when a Conseil Supérieur de Santé was organized to protect Turkish frontiers against epidemic diseases, particularly the plague and cholera, and to take suitable measures for quarantine and disinfection.

From 1838 to 1924 this body consisted of 8 Ottomans and 13 delegates of the Powers. The expenses incurred were defrayed by a sanitary tax levied on all vessels entering Turkish ports. To-day this body is being liquidated and supplanted by a Direction Générale du Service Sanitaire, organized on a purely Turkish basis; the sanitary dues have been raised to 5 piasters (2½ cents) per net-register ton for all foreign vessels. Turkish coastal cities are maintaining 25 quarantine stations, and there are 10 smaller stations in the interior.

## SOCIAL WELFARE

Social welfare, used in the stricter sense of the word, has not developed into a science in Turkey, as it has in some other countries. In fact, it is only in the last decade or two that any organization of national scope, having for its aim the physical improvement and moral betterment of the population at large, has been formed.

59573—26——4

Digitized by Google

### THE "OJAK"

The Turkish "Ojak," or "Fireside," was organized in Constantinople in 1912, with the object of "regenerating the national life through the young people of both sexes, on the basis of a new national culture fashioned largely after the ideas of occidental civilization." The organization has grown rapidly, until to-day it numbers over 70 chapters.

Its program includes the institution of Friday lectures in all "Ojaks," dealing with subjects of direct concern to the Turkish race; frequent concerts of varied types of music; the development of sport clubs; and the organization of public day-and-evening courses, open and free to all racial Turks, for the propagation of scientific and literary knowledge and the study of foreign languages.

### THE RED CRESCENT

The Turkish Red Crescent is a national organization modeled after the Red Cross but, for religious reasons, substituting the crescent for the cross as its symbol. Its delegates attend meetings of the International Red Cross and are properly recognized, but its adhesion to the League of Red Cross Societies is still undetermined. The annual congress of the Red Crescent was held in Constantinople early in 1924 for the first time in four years, as the allied occupation of the city had previously prevented the arrival of the Anatolian delegates and the obtaining of a quorum.

In this congress the work of the Red Crescent was summarized as comprising the maintenance of three free dispensaries, the founding and upkeep of hospitals, supplying the army with sanitary material, supplying the refugees with clothing and food, undertaking the exchange of prisoners of war, and, lastly, contributing financially and otherwise to the "exchange of populations" between Turkey and Greece.

### THE BOY SCOUTS AND CAMPFIRE GIRLS

During the Young Turk régime, especially under the impulse of the Pan-Turanian movement of that time, considerable attention was paid to the organization of Boy Scout patrols. Many of these are still active. Turkish Campfire Girl organizations also exist in two or three cities. As for games, the younger element appears to prefer football.

Digitized by Google

# GOVERNMENT

By Charles E. Allen, American Consul, Constantinople

Modern Turkey is a Republic whose form of government is now crystallized in a constitution of 105 articles, adopted by the Turkish Grand National Assembly on the 16th Ramazan, 1342 (Hegira date), or April 20, 1924, A. D.

## CONSTITUTIONAL RIGHTS

To-day "every Turk is born free and lives free"; and freedom is considered to be every form of activity that does not infringe the freedom of others. "Turks are equal before the law," and "every form of caste, class, family, and individual privilege is abolished and forbidden." The dynasty of Osman is in exile, its property and authority confiscated by the elected representatives of the Turkish people.

Personal immunity, religious worship, thought, speech, publication, labor, possession of property, assemblage, association, and incorporation are sacred rights. The appellation "Turk" is applied to every citizen of the Turkish State, without regard to his race or religion; and no man may be molested on account of his religious belief. The censorship of the press is abolished, and torture, confiscation, and forced labor forbidden. Education, subject to Government supervision, is unrestricted; and taxes may be collected only in accordance with law.

"Life, property, honor, and abode are protected from every sort of assault." Private postal matter may be opened only by decision of a court; and constitutional rights may only be suspended in case of the existence or imminence of war or rebellion, and then only in the manner prescribed by law.

These provisions represent the Turks' endeavor to bring their country abreast of modern progress.

## DIVISION OF CENTRAL AUTHORITY

Governmental power in Turkey, as in modern states in general, is divided into executive, legislative, and judicial authority. In the case of Turkey, however, the order must be changed to read "legislative, executive, and judicial authority;" for in this new Republic all the attributes of national sovereignty are vested in and exercised by the legislative body, or Grand National Assembly.

This body exercises its legislative functions directly; it delegates its executive functions to a President of the Republic whom it elects and to a Council of Ministers or Commissaires (Vekils) whom it approves after appointment by the President; it delegates its judicial functions to courts which it creates by law.

It is very important to understand clearly this outstanding position of the Grand National Assembly as (in the words of art. 4



Digitized by Google

of the constitution) "the sole lawful representative of the nation, which exercises the national sovereignty in the name of the nation." The Assembly is very jealous of this position, which is treasured as the surest safeguard against the return of the autocratic rule of the sultans.

## THE LEGISLATIVE BODY

The Turkish Grand National Assembly does not differ radically from other modern national assemblies, as regards its organization or the rights, privileges, and immunities of its members, except in the fact that it consists of only one chamber, whereas the two-chamber system prevails in most other countries.

### DISTRIBUTION OF DEPUTIES

The Grand National Assembly is composed of 283 deputies "elected by the nation in accordance with a special law" (constitution, art. 9). The distribution of this representation, being based on the number of registered voters, varies automatically with the increase or decrease of the population in the respective Vilayet, or Province.

The Vilayets having the greatest number of deputies rank, as follows: Constantinople, with 15; Smyrna and Konia, each with 10; Balikisir, with 8; Angora, Kastamuni, and Trebizond, each with 7. Of the remaining 66 Provinces, 13 have 5 delegates each, 11 have 4 each, 18 have 3 each, 13 have 2 each, and 6 have 1 each.

### ELECTION OF DEPUTIES

"Every male Turk who has completed his eighteenth year has the right to participate in the election of deputies" (constitution, art. 10). This, however, does not mean universal manhood in the fullest sense. The election law now in force, which is the law of 1876 modified from time to time, provides for a system not dissimilar to that under which Presidents are elected in the United States; that is, the voters of the first class, comprising the whole body of the electorate, elect voters of the second class, corresponding roughly to presidential electors in the United States; these, in turn, elect the deputies.

Voters of the first class must be 18 years of age; must not be deprived of civil rights; must not be foreigners or persons claiming foreign nationality; must not possess capitulatory privileges as a result of service in a foreign mission or consulate; if adjudged bankrupt, must be restored to credit; if legally incompetent, must be relieved of disabilities. Voters of the second class must possess the additional qualifications of not being domestic servants and not being notoriously in bad circumstances. There was formerly a property-holding qualification, but this was abolished by a law of April 3, 1923.

### QUALIFICATION AND LENGTH OF TERM

"Every male Turk who has completed his thirtieth year has the qualification for election as deputy" (constitution, art. 11), except that "persons in official foreign service, persons convicted of heinous crimes or the crimes of theft, forgery, fraud, breach of confidence, or fraudulent bankruptcy, persons legally incompetent, per-

Digitized by Google

sons claiming foreign nationality, persons deprived of civil rights, and persons not knowing how to read and write Turkish may not be elected deputies" (constitution, art. 12).

The Assembly is elected for a period of four years, which period may be extended for one year if it should not be possible to hold new elections at the normal time. Deputies are eligible for reelection. Vacancies are filled by by-elections.

### RIGHTS, PRIVILEGES, AND IMMUNITIES

On entering office, deputies are required to take an oath of allegiance to the Republic. They are paid an annual salary, fixed by the Assembly from time to time; at present this is £T3,600 (about $1,900) per annum.

Deputies are also freed from any responsibility for their votes or utterances within or without the Assembly, and are immune from arrest without the consent of the Assembly, except when taken flagrante delicto in crime, in which case the Assembly must be immediately informed by the competent authorities. All criminal actions against deputies are suspended during their terms of office, but in such cases the statute of limitations also is suspended.

A deputy accused of treason or of any blameworthy offense committed during his term of office loses the status of deputy by decision of a two-thirds majority of the members of the Assembly present, and he also loses the status of deputy upon conviction of any of the crimes enumerated in article 12 of the constitution, namely, a heinous crime or theft, forgery, fraud, breach of confidence, or fraudulent bankruptcy.

### ASSEMBLY SESSIONS

The Assembly convenes every year on the first of November, and may not adjourn for a longer period than six months in any year. Either the President of the Republic or the president of the Assembly may call special sessions. The latter must call a special session on the demand of one-fifth of the total number of deputies. There is a disposition to assure to the Assembly freedom from control by the Executive.

The Assembly alone can dissolve itself and order new elections by decision of a majority of the total membership, and it makes its own rules for the transaction of its business. Its debates are public, and must be published literally. It may, however, provide in its rules for secret sessions and decide as to whether the reports of secret sessions may be published.

### ASSEMBLY POWERS

The powers of the Assembly are set forth in article 26 of the constitution, as follows: Enforcement of the provisions of holy law; enactment, amendment, interpretation, annulment, and suppression of laws; conclusion of conventions, treaties, and peace with States; declaration of war; examination and approval of the budget and of the accounts of the State; coining of money; approval and annulment of conventions and concessions relating to monopolies and financial enterprises; proclamation of general and special amnesty; reduction and alteration of sentences; hastening of trials and punishments; execution of confirmed capital sentences from courts.

Digitized by Google

The provisions for speedy trials, revision of sentences, and execution of capital punishments referred to in the prceding paragraph are interpreted to mean that the Assembly is the court of last resort wherever capital punishment is concerned; that no Turkish citizen may be deprived of life without the consent of his lawfully constituted representatives; and, further, that any person conceiving himself held for trial an unduly long time or unjustly sentenced may appeal to these representatives.

#### RELATION TO CABINET

A further important power of the Assembly is that of at all times supervising and controlling the cabinet, provided for in article 7 of the constitution. This is interpreted to mean the possession of a more extensive authority in the matter of overthrowing a cabinet than is held by representative bodies in European countries, where the intervention of the head of the State is required to terminate the life of a cabinet.

This power, together with that of the Assembly to dissolve itself, further instances the disposition of the Turkish people to assure their representatives freedom from interference by the Executive.

### THE EXECUTIVE, OR PRESIDENT

#### ELECTION AND SUCCESSION

"The President of the Republic of Turkey is elected for one term by the committee of the whole of the Grand National Assembly from among its members. He continues his presidential duties until the election of a new President of the Republic. He is eligible for reelection" (constitution, article 31). It is not definitely specified, but it is inferred that election for "one term" means for four years, as in the case of deputies.

If the President is absent from his post for reasons of illness, foreign travel, and the like, the President of the Assembly temporarily performs his duties. In case the office is vacated by death, resignation, or otherwise, the President of the Assembly likewise temporarily performs the duties until the Assembly elects a new President—which it must do forthwith, if it is in session; and if it is not in session, a special session must be called.

#### EXECUTIVE POWERS AND LIMITATIONS

Upon his inauguration, the President takes an oath of fidelity to the Republic and for the faithful and efficient performance of his duties. He is paid an annual compensation, which is fixed from time to time by law. He appoints the diplomatic representatives of Turkey abroad and receives the foreign diplomatic representatives accredited to Turkey. He is not responsible to the Assembly for his acts, except in the case of treason; and he appoints the prime ministers.

He is not, however, commander in chief of the army and navy. The constitution provides that he represent the commander in chief, which office is vested in the moral person of the Grand National Assembly, and that the actual exercise of command shall be entrusted in time of peace to the presidency of the general staff and in time of war to the person who shall be appointed by the President upon the recommendation of the cabinet.

Digitized by Google

His pardoning power likewise is restricted to the remission or lightening of sentences for personal reasons, such as permanent disability and old age, and then only on the recommendation of the cabinet. This power may not be exercised in the case of ministers convicted after impeachment by the Grand National Assembly. Moreover, executive orders issued by him must be countersigned by the prime minister and by the minister to whose department they refer; and it is the ministers, not he, who are responsible for such orders.

### RELATIONS TO LEGISLATIVE BODY

The President presides over the Assembly on occasions of special ceremony and may, if he deems it necessary, preside over meetings of the Council of Ministers. He may not, however, take part in the debates or vote in the Assembly.

The President approves and promulgates the laws passed by the Assembly. This does not mean, however, that he has the right of veto in the true sense of the word. His veto power is very shadowy and consists in the right to send back to the Assembly within 10 days, with a statement of his reasons, all laws of which he does not approve, except budget laws and amendments to the constitution. But if the Assembly repasses any such law sent back, its promulgation by the President is obligatory.

The President is required either to deliver or to have read by the Prime Minister every year during November an address to the Assembly, informing it of the activities of the Government during the preceding year and of the measures it is deemed expedient to take during the coming year. The similarity between this procedure and the American one of the presidential messages to Congress will readily suggest itself.

### THE COUNCIL OF MINISTERS

The Prime Minister or head of the cabinet is appointed by the President, and choice is confined to the membership of the Assembly. The other ministers are chosen by the Prime Minister from among the members of the Assembly and, after being approved by the President, the list is submitted to the Assembly if it is in session; otherwise, as soon as it convenes.

*Composition of cabinet.*—The number and duties of ministers correspond with the number and duties of departments of the Government, which are fixed from time to time by law. The ministries existing at present are enumerated below:

Prime Ministership, or Presidency of the Council.
Ministry of Foreign Affairs.
Ministry of the Interior.
Ministry of Posts and Telegraphs.
Ministry of National Defense (army, navy, air service).
Ministry of Justice.
Ministry of Finance.
Ministry of Commerce.
Ministry of Marine.
Ministry of Agriculture, Mines, and Forests.
Ministry of Public Works.
Ministry of Health and Public Assistance.
Ministry of Exchange of Populations, Settlement, and Reconstruction.
Ministry of Education.

Digitized by Google

Until recently the cabinet included a Ministry of Religion and Pious Foundations and a Presidency of the General Staff, but these have not enjoyed cabinet rank since the "bloodless revolution" of March 2, 1924, which sent the dynasty into exile and completed the separation of church and state.

*Responsibility to Assembly.*—The cabinet is required to make a statement of policy to the Assembly within one week after taking office. It is collectively responsible for the general policy of the Government, and each minister is individually responsible for his own acts and omissions and those of his subordinates. If a minister is temporarily absent from his post, his duties are provisionally performed by another minister, but a minister may not provisionally perform the duties of more than one other minister at the same time.

*Powers of the cabinet.*—The cabinet carries on the routine business of the Government, putting into effect the laws passed by the Assembly. It may initiate legislation, the same as individual members of the Assembly, and its members must furnish information to the Assembly relative to the activities of their respective ministries, when demanded. The members take part in the debates and vote as members of the Assembly. As already stated, the cabinet is subject at all times to supervision and overthrow by the Assembly.

## JUDICIAL AUTHORITY

The judicial authority is vested in courts, of which "the organization, duties, and jurisdiction are fixed by law" (constitution, article 53). The judcial organization was greatly modified by a law bearing date of April 8, 1924, and effective from May 1, 1924, which was designed to simplify and hasten court action.

This law made two sweeping changes in the organization hitherto in effect, first, by abolishing the Sheri, or ecclesiastical courts, and, second, by abolishing the provincial courts of appeal. It also terminated the separate existence of courts of commerce. As a result, there now exist only peace courts, courts of first instance, criminal courts, and a court of cassation.

### COURT JURISDICTION

The peace courts may be compared to the police courts or justices' courts in the United States. They have jurisdiction in civil suits not involving more than £T200 (about $106), in all arbitration proceedings regardless of the amount involved, and in criminal cases not involving imprisonment for more than one year or a fine of more than £T100 (about $53).

The courts of first instance have civil, commercial, and criminal jurisdiction in all cases not falling within the jurisdiction of the peace courts, including jurisdiction in matters of probate, personal status, marriage, divorce, etc., formerly vested in the ecclesiastical courts.

The criminal courts are supplementary courts, designed to relieve the courts of first instance of criminal jurisdiction in the districts where the Ministry of Justice finds it necessary to establish them. The Ministry of Justice is given wide powers in varying the compo-

Digitized by Google

sition of courts in accordance with local conditions, thus assuring the speedy and normal rendering of justice throughout the Republic.

Appeal lies in every case to the court of cassation, which has been strengthened by the addition of a second petitions section, a second civil section, and two assistant State's attorneys.

In principle, there is a peace court in every "nahieh" (township), a court of first instance in every "kaza" (county), and a criminal court in every county where the volume of criminal cases is deemed to justify its establishment. The law and procedure are modeled after the French law and procedure, wide allowance being made for local conditions, and the whole is subject at all times to the legislative action of the Grand National Assembly.

### THE HIGH COURT

In addition to the courts enumerated above, the constitution also provides for a High Court to try ministers, members of the Council of State (an advisory body of persons distinguished for learning and experience, which is to be elected by the Grand National Assembly, and whose duties are to be fixed by law), presidents and members of the court of cassation, and the chief State's attorney, on charges in connection with their official duties. In other words, this is a special court exercising the jurisdiction that is exercised by the Senate of the United States in cases of impeachment of Federal officers by the United States House of Representatives.

The High Court is composed of 11 members from the court of cassation and 10 from the Council of State, elected by those bodies themselves. It elects its own president and vice president, and either of these, together with any 14 members, can by majority vote render a final decision.

### COURT FREEDOM

Judges are independent in their trials and decisions and free from every form of interference, but subject to the law. Their decisions may not be modified, suspended, or annulled by either the Assembly or the cabinet, and they may only be dismissed in accordance with the procedure and under the circumstances fixed by law. Their rights, privileges, immunities, duties, salaries, and the mode of their appointment and dismissal are defined by law. They may not engage in any private business.

They are required to hear every action within their jurisdiction, and only by judicial decision may they reject an action lying without their jurisdiction. Trials are public, except as otherwise provided for by legal proceduce; and the parties are free to introduce every form of evidence that they consider necessary to the support of their contentions.

## LOCAL AUTHORITY

### PROVINCES

Below the central Government, the Republic of Turkey is divided administratively into Provinces, or Vilayets. These Provinces represent States; but in their size and organization they are more nearly similar to the "départements" of France, which they also resemble

Digitized by Google

rather closely in the matter of relation to the central Government since the governor general (vali) of each Province is appointed by the central Government (Ministry of the Interior) and subject to transfer to any other Province in the discretion of that Government.

*Federal-appointed officials.*—Each Province has its provincial assembly, elected by the provincial population. However, the principal authority is exercised by the governor general, who is the representative of the Grand National Assembly. He is assisted by local representatives of the various ministries, such as the commander of the constabulary, the chief of police, the collector of internal revenues, the directors of customs, public instruction, etc., who carry on the routine affairs pertaining to the ministries they represent, subject to the supervision of the governor general.

*Limits of local autonomy.*—A certain amount of local autonomy is provided for, and is defined by law as excluding foreign and domestic politics, judicial and military affairs, international commercial relations, and the general interests of the Government; and as comprising, subject to the laws enacted by the Grand National Assembly, public instruction, sanitation, commerce, agriculture, public works, and charity. The authority and privileges of the local assemblies are, of course, subject to extension and diminution at will by the Grand National Assembly.

## SUBPROVINCES AND TOWNSHIPS

Each Province is divided into subprovinces (kazas), which may be considered comparable to counties in the United States. Each subprovince is governed by a lieutenant governor, who is also appointed by the central Government (Ministry of the Interior), but who is subject to the orders of the governor general. Subprovinces have no representative assemblies.

The subprovinces are further subdivided into "nahiehs" (townships). The township is governed by a director (mudir) and an administrative council, both elected by the township assembly, which is itself elected by the local population. Below the township, in administrative order, come the cities, towns, and villages.

Digitized by Google

# COMMUNICATIONS

By Julian Gillespie, American Trade Commissioner, Constantinople

## ROADS AND TRAILS

Throughout Turkey the principal means of transportation are horse-drawn carriages and wagons, oxen and water-buffalo carts, pack horses, donkey trains, and camel caravans—the last in decreasing numbers. In many parts of the Anatolian interior the ruggedness of the country, together with the poor condition of the roads and trails, precludes any other means of travel.

The present-day Turkish roads for the most part are the remains of ancient trade and caravan routes dating back beyond the beginning of the Christian era. Transportation of goods and travel, as well as military transport, are still largely dependent on the use of these caravan roads, which were once the principal trade arteries of a commercial world extending from India, Persia, and the Black Sea to the Eastern Mediterranean, Egypt, and the Persian Gulf.

Roads in Turkey are relatively few and, in general, in poor condition. The pikes, where existent, are about 26 feet wide and metaled for about 20 feet, usually with large stones and mud. Cobblestones are used in city and town paving but seldom in the construction of roads. The country abounds in cart tracks, which are very rough, stony, and dusty in summer and extremely muddy and practically impassable in winter. In many instances these cart tracks and trails are the remains of old pikes that have fallen into disrepair.

It is with abundant reason, therefore, that the President has declared the first needs of the Republic to be the development of better and more extended means of communication—all other reforms depend upon this for their carrying out.

### ATTEMPTS AT ROAD BUILDING

Little money has been spent on road building in Turkey. Of the 7,000 to 10,000 miles of roads and trails, probably not more than 3,000 miles have been metaled, and most of these are in bad repair. There were several rather ambitious projects by the Government of the former Imperial Ottoman Empire; but as Turkey has been in a state of war almost continuously since 1910, none of these projects have been fulfilled. During the Great War and under German influence, a few very excellent military roads were built; but these have since fallen into disrepair, despite the fact that the country abounds in quarries and other road-building resources.

#### RECENT LEGISLATION

Early in 1925 there was promulgated through the Turkish press a law designed to improve the system of roads in the Republic, of which the following are the salient features:

Every male Turkish citizen between the ages of 18 and 60, except persons suffering from incurable diseases, paupers, students, persons serving in the



Digitized by Google

armed forces or the constabulary, and fathers of six children, is required to pay a road tax.

The tax shall consist of not fewer than 6 nor more than 12 days of manual labor per annum, or the equivalent thereof in money or kind.

The general council of each Province (Vilayet) is required to elaborate a road-building program, covering a period of five years, indicating the relative economic importance of the roads projected.

The selectmen (muhtars) and members of the councils of elders are to receive a commission of 2 per cent, if 50 per cent of the total road tax of their respective districts is collected; 3 per cent, if 75 per cent is collected; and 5 per cent, if over 75 per cent is collected.

The Ministry of Public Works must see that each Province possesses a steam roller.

The laws of February 27, 1913, and February 21, 1921, relative to road tax, are repealed.

This law is effective from the date of its publication (February 9, 1925).

On March 24, 1925, the road tax for the Province of Constantinople was increased from £T3 to £T6 per person, and this is expected to permit extensive repairs and construction of streets in the immediate future. Shortly afterward the National Assembly voted £T100,000 for improvements during 1925 in the region of Skutari (the Asiatic section of Constantinople). Part of this is for construction of a road from Skutari to Beikoz, farther north on the Bosporus.

### METALED ROADS IN EUROPEAN TURKEY

The principal metaled roads in Turkey in Europe cover the following stretches:

| | Miles |
|---|---|
| Adrianople to Constantinople, via Baba-Eski and Chorlu | 144 |
| Adrianople to Constantinople, via Kirkler-Ili and Serai | 161 |
| Baba-Eski to Molako (Trnovo) via Kirkler-Ili | 52 |
| Gallipoli to Demotika, via Uzun-Keupru | 91 |
| Rodosto to Keshan (80 kilometers west) | 50 |
| Rodosto to Muradli (20 kilometers north) | 14 |
| Buyuk-Checkmejeh (on Marmoran coast 30 kilometers west of Constantinople) to Derkos (35 kilometers north-northwest near Black Sea coast) | 24 |

## CONDITIONS IN ASIATIC TURKEY

As yet there is no regular automobile traffic in the interior of Anatolia, because roads are in such poor state that for long periods, particularly in winter, most of them are impassable. Nor can Anatolia be said to have a complete road system. Besides the two north-and-south caravan routes between Persia and the Black Sea, there are two east-and-west trunk routes leading to the Bosporus—one from Armenia through Angora, the other from Syria through the Cilician Gates and Konia.

### PRE-WAR ATTEMPTS

Certain legislation was passed in the Ottoman Empire in 1856, 1860, 1869, and 1891, which had for its objective the construction of roads with forced labor or its equivalent. According to this legislation, the highways to be constructed were divided into three classes:

**Imperial highways**, connecting the capital of each Vilayet with Constantinople or with the nearest port or railway station.

**Provincial highways**, connecting the capitals of the various Vilayets with those of the various sanjaks.

Digitized by Google

Sanjak highways, connecting the chief towns of the kazas with one another, or with the Imperial or provincial highways, or with harbors or railways.

The road construction contemplated by this legislation was conspicuously unsuccessful.

A French concern held a vast road-building concession, granted to it by the Turkish Government, and was beginning to exploit it when the Great War broke out.

### PERSIAN CARAVAN ROUTE

The Persian-Turkish caravan route runs from the port of Trebizond on the Black Sea to Erzerum, via Ardasa and Gumush-Haneh; thence to the border town of Bayezid, via Hassan-Kaleh, Kara-Kilisseh, and Diadin; and thence to Tabriz. The route is in fairly good condition and is still used for the diminishing through traffic to and from Persia. Prior to the establishment of steam shipping, this caravan route extended west from Erzerum—via Erzinjan, Sivas, Yozgad, Angora, Ada-Bazar, and Izmid—to Skutari, across the Bosporus from Constantinople.

At the present time it is of little importance for through traffic with Persia, but is still used for local transport. This route has been metaled only in parts, and is therefore impassable for wheeled vehicles during a portion of the winter.

### SAMSUN-BAGDAD CARAVAN ROUTE

The old Samsun-Sivas-Bagdad caravan route is still one of the most important highways in Turkey. It extends from Samsun, via Amasia and Tokat, to Sivas; thence eastward to Zara, over the Anti-Taurus range, to Divrik and Arabkir; and thence southeastward to Harput. From Harput the road continues southeastward to Argana, via the town of Argana Maaden where certain famous copper mines are located, and on to Diarbekir. At Diarbekir this route connects with the old east-west Iraq, Kurdistan, and Syrian highway, by which it is possible to proceed either southeastward to Bagdad via Mardin, Nisibin, and Mosul, or southwestward to Aleppo via Urfa.

This road has still a considerable trade use, but will lose much of that importance when greater security is established in Iraq and more regular traffic across the Syrian desert becomes possible. Likewise, with the completion of the proposed railway from Samsun to Sivas, this route will be of less importance as a highway.

### ROADS IN WESTERN ANATOLIA

The best roads in Turkey are probably found in western Anatolia in the Vilayet of Brusa, where more than 1,400 miles of metaled roads are reported to have been built. Unfortunately, they have fallen into a bad state of disrepair, because of the recent Greco-Turkish military activities of 1919–1922. Panderma and Yeni-Shehir are the chief centers. A fairly good road, suitable for automobile transportation, runs from Mudania to Brusa, thence to Eski-Shehir, and on to Angora via Sivri-Hissar. This highway branches off at Eski-Shehir and goes southwest to Kutahia, thence southeast to Afion-Kara-Hissar and Konia. A little south

Digitized by Google

of Kutahia there is a branch road which runs southwest to Ushak and Ala-Shehir on the Smyrna-Kasaba Railway.

From Konia the so-called Marmora highway crosses the Taurus Mountains, via Karaman, to Tarsus. Another road crosses this route in northern Cilicia, running from Mersina, via Tarsus and Adana, to Alexandretta. Except in the Vilayet of Brusa, where in general roads are metaled, it is probable that most of these highways would be impassable in muddy weather.

In the vicinity of the Dardanelles there is a comparatively good system of roads, most of which were constructed for military purposes. Between Smyrna and Manisa (Magnesia) the road has been so improved during the first half of 1925 as to develop a fairly good automobile traffic.

### CENTRAL AND NORTHEASTERN ANATOLIA

In central Anatolia, Kaisaria (Caesarea Mazaca) is one of the most important centers of communication. From this point, highways that for the most part are metaled run (*a*) southwestward to Nigdeh, thence either to Eregli or to Ulu-Kishla on the Bagdad Railway, and thence via the Cilician Gates, either to Adana or to Tarsus and Mersina; (*b*) southwest to Konia, via Akserai; (*c*) northwest to Angora, via Kir-Shehir; (*d*) northeast to Sivas and thence northward to Samsun; (*e*) east to Malatia and Harput; and (*f*) southeast to Marash.

In the Vilayet of Kastamuni, a fair road runs south from Inebolu on the Black Sea to the city of Kastamuni, and then on to Angora by way of Kangri (Changra). The last 70 kilometers of this road are unmetaled and almost impassable in winter.

In the northeast there is a road from Trebizond to Batum, which follows the coast. This road is passable in dry weather for motor transport. Several fair roads were built in that section by the Russians during the early period of the World War.

## RAILWAYS

Prior to the outbreak of the World War in 1914, all railways in present-day Turkey, with the exception of a portion of one line, were constructed and financed by the initiative and enterprise of foreign investors, actuated by the hope of reaping large profits in opening the rich and fertile regions of Anatolia and in generally furthering the economic development of the country.

### THE SMYRNA-AIDIN RAILWAY

Immediately following the Crimean War, when under Lord Palmerston's foreign policy English prestige in Turkey was at its height, an English company obtained a concession (1856) for the construction of the "Ottoman Railway from Smyrna to Aidin"—the first railroad to be built in the Ottoman Empire. The original line, from Smyrna southward to Azizieh (just south of Ephesus) and thence eastward to Aidin, was completed in 1866. An extension eastward from Aidin up the Buyuk-Menderes (Meander) Valley to Egerdir was granted, and the construction

Digitized by Google

was completed in 1912—a total length of 293 miles. A request was made in 1891 to extend the line to Konia, but was not granted.

There are four principal branch lines: (*a*) Eastward along the valley of the Kuchuk Menderes, from Torbali to Tireh, with a later sub-branch eastward from Chatal to Oedemish; (*b*) southwest, near the coast, from Balachik to Sokia; (*c*) on the extension beyond Aidin—from Gonjeli southward to Denizli, and (*d*) from Sutlej northwest to Chivril. In addition, there are two short local branches immediately tributary to Smyrna—that from station Paradis (5 kilometers south of Smyrna) to Buja, 2½ kilometers to the east; and that from Kazamir (10 kilometers south of Smyrna) to Sevdi-Keui, 1½ kilometers to the southwest.

This line, as a whole, represents an investment of approximately $50,000,000, and is said to have been fairly profitable to the shareholders. It still remains under British control. The total length of the main line and four branches in 1924 was 379 miles, all in operation. The operating results in the first half of the year were the poorest on record, owing to failure of grain, cotton, and olive crops, to the continued depreciation of paper money, the reduced tariffs, the unsettled state of the country attending exchange of populations, and the general trade stagnation. Nevertheless, mineral shipments rose to nearly seven times those in the first half of 1923.

During the second half of 1924, however, the increased tonnage carried, along with a higher tariff for passenger traffic and for certain commodities, brought the operating surplus to £111,981, as against £77,885 for the second half of 1923. The total net profit for the year was £127,955.

By tapping one of the richest sections of Anatolia the Ottoman line has made essential contributions to the country's development, especially to Smyrna's ante bellum trade. Since 1888 the railway has had no kilometric or other financial guaranty from the Government. Its chief strength lies in the natural resources of the tributary territory and in the circumspection of its scope, which does not encourage adventure.

## THE SMYRNA-KASABA RAILWAY

The second railway line to be built in Turkey was the so-called Smyrna-Kasaba line (Chemin de Fer Smyrne-Cassaba et Prolongement). A concession was granted to an English company in 1863 for the construction of a railway between Smyrna and Kasaba, and the line was opened for traffic in 1866. In 1875 it was extended eastward to Ala-Shehir, and in 1890 a branch was laid from Manisa (Magnesia) northward to Soma. The Turkish Government took over the line in 1893 and transferred it to a French company. In 1897 this company completed the line eastward as far as Afion-Kara-Hissar, where it connects with the Anatolian Railway. In 1912 the branch line to the north was completed to Panderma on the Sea of Marmora. There is also a 5-kilometer branch from Smyrna northeast to Burnabat. The total length of the Smyrna-Kasaba Railway and its two branch lines is 443 miles.

The entire system is protected by a Government guaranty, of which certain sections of the lines hitherto have taken advantage, but presumably will not require for long, as the districts traversed have

Digitized by Google

experienced most gratifying development. The railway's future, like that of the Smyrna-Aidin, is vouched for by the potentiality of the regions covered. Extensions to the interior on a large scale are prevented by the Anatolian Railway; but several promising local additions are planned, especially in the hinterland of Brusa, south of the Mysian Olympus.

### THE MUDANIA-BRUSA RAILWAY

The Mudania-Brusa Railway, a small narrow-gauge line 26 miles long, was begun by the Ottoman Government in 1873, abandoned until 1891 for lack of funds, and completed by a French company (Société Anonyme Ottomane du Chemin de Fer de Moudania-Brousse) in 1892, under a concession which expires in 1990. No Government guaranty is involved and none is needed, as the line is a going and paying concern.

If this railroad were electrified and connected with Constantinople by a modern ferry service, it would at once assume a position of conspicuous usefulness by reason of Brusa's capacity as a hot-springs health resort. The waterfalls of the Mysian Olympus, close at hand, offer a source for electricity. The vicinity also affords important chances for mining operations and for land-reclamation projects.

### THE ORIENTAL RAILWAY

The concession for the Oriental Railway (Société Anonyme des Chemins de Fer Orientaux), which connects Constantinople and the Balkans with the capitals of western and central Europe, was originally granted in 1872 with the right to build approximately 625 miles of line running from Constantinople to the frontier of Bulgaria and from Saloniki to the Serbian frontier.

*Construction.*—In 1888 construction of the line in Turkish territory was completed, and railway communication with western Europe established. Subsequently the junction line was built from Kuleli-Burgas, on the Maritza, to Saloniki via Dedeagatch. Since 1913 this latter line has been outside Turkish territory. In 1912, a branch line from Alpullu, on the Oriental Railway just below Baba-Eski, was built to Kikler-Ili.

Under the treaty of Lausanne, the Oriental Railway from Constantinople to a point where it crosses the Maritza southeast of Kuleli-Burgas, a stretch of 174 miles, is Turkish. From Kuleli-Burgas north to a point on the Maritza about one kilometer northwest of Boshnak-Keui (or about two kilometers southwest of Adrianople) the railway line runs through Greek territory. From Boshnak-Keui to Karagatch (the railway station for Adrianople) it is within Turkish territory; but from the latter station it passes once more into Greek territory, and continues to the Bulgarian frontier.

As a part of the general transportation development undertaken by the present Government, the budget for 1925–26 provides a small appropriation (£T150,000, or about $80,000) for construction and other expenses on a narrow-gauge branch from Uzun-Keupru south to Keshan.

Digitized by Google

*Financial control.*—The Oriental Railway was originally constructed by a consortium controlled by Baron Hirsch, but in 1889–90 a financial group headed by the Deutsche Bank purchased from him 88,000 shares, the controlling interest. Later in 1890 the Banque des Chemins de Fer Orientaux of Zurich was organized as the holding company for the various financial operations in the Near East of the Deutsche Bank, the Wiener Bank Verein, and the Schweizerische Kredit Anstalt. To this Zurich bank was turned over the controlling interest in the Oriental Railway, which had been purchased from Baron Hirsch by the same group in the previous year. Since the treaty of Versailles (1919) the control of the Oriental Railway (Société des Chemins de Fer Orientaux) has been exercised by the French.

*Economic features.*—Except for mail and passenger traffic, the Oriental Railway does not perceptibly affect the economic life of Turkey. The Turkish territory through which it runs is largely uncultivated, and most of the produce of the more fertile parts of eastern Thrace which fall within the drainage area of the Sea of Marmora prefers the sea route. The traffic in manufactures carried by rail from Central Europe to Constantinople, however, may eventually assume substantial proportions. To encourage it, the railroad company has devised plans for a harbor and terminal facilities at Psamatia and the Seven Towers (Constantinople), in close cooperation with the Anatolian Railway.

Passenger transportation by the Orient Express, over the Oriental Railway, enables the traveler from Paris and London to reach Constantinople in four and one-half days.

## THE MERSINA-ADANA RAILWAY

In 1883 a concession was granted to two Turks for the construction of a railway line running from Mersina to Adana, a distance of 42 miles. The Tarsus-Taurus & Adana Railway Co., an English concern, obtained this concession in 1885 and opened the railway in 1886. The controlling interest of the line passed to a French group in 1896, and in 1908 it was taken over by German interests and made a part of the Bagdad railway system. Recently the British-Swiss group of stockholders in the Anatolian system has recovered possession of the line.

## BOSPORUS-TO-PERSIAN GULF RAILWAY PROJECTS

The completion of the Oriental Railway in 1888, connecting Constantinople with Vienna, Paris, and London, not only emphasized the inadequacy of rail communications in Asia Minor but encouraged Sultan Abd-ul-Hamid to favor the elaboration of an extensive railway construction program in Anatolia.

Wilhelm von Pressel, an eminent German railway engineer who had been engaged in 1872 as a technical adviser to the Ottoman Government in railway matters and who later assisted in the construction of the Oriental Railway Co.'s lines through the Balkans, foresaw the possibilities of a well-organized railway system in the Ottoman Empire, and his plan for the construction of a

Digitized by Google

railway line from the Bosporus to the Persian Gulf met with warm support from Abd-ul-Hamid.

The Sultan was encountering increasing difficulty in the control of the more remote districts of his empire, and he not only was anxious to increase his prestige throughout the country but was extremely desirous of taking any steps that would tend to make easier the control over a larger number of his subjects.

The Ottoman Public Debt Administration also favored the railroad-construction program of Abd-ul-Hamid, knowing that the resulting economic development of the country would eventually take the form of increased revenues to the Government.

### THE ANATOLIAN RAILWAY SYSTEM

The Anatolian Railway system is one of the two main groups constituting the original German railroad enterprises in Asia Minor, the other group being the Bagdad Railway. Each operates under a 99-year concession, which includes a kilometric guaranty from the Turkish Government. The Anatolian system, as now constructed, comprises three lines—that from Haidar-Pasha to Izmid, the extension from Izmid to Angora via Eski-Shehir (including its side line from Arifieh north to Ada-Bazar and thence eastward to Duzje, with Bolu as the objective), and the branch running south from Eski-Shehir to Konia (including its lateral from Alayond west to Kutahia).

In its operation the Anatolian system soon proved its capacity by producing receipts that rendered the kilometric guaranties unnecessary. Instead, during the years immediately preceding and following 1914, it paid into the Turkish treasury varying sums that represented 25 per cent of its excess profits. The development of the three lines that make up the Anatolian system is summarized below.

*Haidar-Pasha to Izmid.*—The Turkish Government, in 1871, had built a railway line from Haidar-Pasha, the Constantinople station on the Asiatic side of the Bosporus, to Izmid—a distance of 56 miles. In 1880 this railway line was leased to the English company that controlled the Mersina-Adana Railway line.

The impetus given to railway construction in Turkey by the opening of the Oriental Railways from western Europe to Constantinople, together with the interest displayed by the German financial group headed by the Deutsche Bank in 1888, resulted in the revocation of the English company's lease of the line from Haidar-Pasha to Izmid.

*Izmid-Angora extension.*—Shortly after the cancellation of this lease it was transferred to a German syndicate, and simultaneously a concession was granted to the same syndicate to extend the railway from Izmid to Angora, via Eski-Shehir, with a branch line to Ada-Bazar. This syndicate, which came to be known as the Anatolian Railway Co. (La Société des Chemins de Fer Ottomans d'Anatolie), received a guaranty from the Government of 15,000 francs per kilometer for the construction and operation of the line; at the same time it was given to understand that eventually the Ottoman Government would extend the concession for the railroad, to run from Angora to Bagdad via Sivas and Diarbekir. The

Digitized by Google

construction of the Izmid-Angora extension (301 miles) was completed in 1892.

*Branch, Eski-Shehir to Konia.*—In 1893 the Anatolian Railway Co. obtained two important additional extensions to its concession. The first was for an extension of the railway from Angora, through Kaisaria and Diarbekir, to Mosul, Bagdad, and thence to the Persian Gulf. The construction of this line was never undertaken, partly because of engineering difficulties but primarily because of pressure exerted by Russia on the Sultan.

The second extension was for the construction of a branch line from Eski-Shehir to Konia, via Afion-Kara-Hissar (276 miles). The construction was immediately undertaken and the line was opened for traffic in 1896, thereby diverting to Constantinople the trade from Central Anatolia that for years had been in the hands of the Greeks in Smyrna.

*Activities under the Republic.*—The final disposition of the Anatolian system, as between the Angora Government and the various groups of stockholders, is still undecided. The Government and the National Assembly, however, are authorizing considerable public expenditure for the restoration of the lines from the great damage inflicted during the Turko-Greek War. These improvements include the enlargement and repair of the Haidar-Pasha station and quay, together with other railway stations destroyed, the putting into shape of the Eski-Shehir railway shops where all rolling stock is sent for repair, the rebuilding of bridges, the replacement of rails and ties, and the ordering of new locomotives and cars. The greater part of this was under way by early spring of 1925.

In order to hasten the use of the main line, all luxuries in equipment were eliminated, except a sleeping-car service from Constantinople to Angora instituted in October, 1923, and a dining car and additional sleeping cars ordered early in 1925. The journey between the two cities can now be made in 22 hours, instead of three days as before.

*Projected extensions.*—The Assembly, after authorizing the Government in April, 1924 (law No. 506, La Législation Turque), to undertake the repurchase of both the Anatolian and the Bagdad lines, in the fall of the same year authorized the construction during the next five years of additional branches and extensions of the Anatolian system totaling 350 kilometers. In furtherance of this development, law No. 625, passed April 16, 1925, authorized a total credit of £T16,000,000 for construction and operation of an extension of the Kutahia lateral northwest to Tavshanli and its eventual prolongation to the Harmanjik chrome fields, the amount to be apportioned by installments in the annual budgets. The budgetary allowance for 1925–26 was £T1,000,000 (about $530,000).

Another projected branch of the Anatolian system will run from Serai-Oenu (on the main line, 50 kilometers north of Konia) eastward to Akserai, southeast of Lake Tuz. For this work the Assembly on March 11, 1925, voted £T500,000, the company having raised £T250,000 and the population of Akserai a like amount. [This law had evidently not become effective by August, 1925, since it had not then been promulgated nor had the item appeared in the railway budget for 1925–26 as voted by the Assembly, but the State director of construction announced preliminary studies in progress.—*Editor.*]

Digitized by Google

## MEDITERRANEAN-TO-PERSIAN GULF PROJECTS

From 1896 to 1899 several projects for the construction of railways from the Eastern Mediterranean to the Persian Gulf were presented to the Ottoman Government. Among these was a Russian proposal, which received little support at the Sublime Porte; a project backed by British bankers to construct a railway from Alexandretta to the Persian Gulf, which failed through lack of support in London on account of the outbreak of the Boer War; a third proposal from a group of French bankers, to use the French railways in Syria as a nucleus for a railway to the Persian Gulf; and a fourth submitted by the German bankers, headed by the Deutsche Bank, for the construction of a railway from Konia to Mosul and thence to the Gulf via Bagdad and Basra.

After the first two projects had failed, an agreement was arrived at in 1899 between the Deutsche Bank on the one hand and French bankers and the Smyrna-Kasaba Railway on the other hand, which admitted the Imperial Ottoman Bank (French) to participation in the proposed Bagdad Railway Co., French and German interests each to subscribe 40 per cent of the capital and Turkish investors permitted to subscribe the remaining 20 per cent.

### THE BAGDAD RAILWAY

After various further negotiations, the Bagdad Railway Co. was finally incorporated in 1903 in Constantinople by the Deutsche Bank and the Imperial Ottoman Bank jointly. It received a concession, valid for 99 years, for the construction of a line from Konia to Bagdad, via Adana, Aleppo, and Mosul, thus establishing the second of the two groups representing the German railway enterprises in Asia Minor.

*Construction under Abd-ul-Hamid.*—The building of the first section of the railway, from Konia to a few miles beyond Eregli, was undertaken and completed in the fall of 1904. The financial condition of the Turkish Government, however, was such that it was unable to conclude the arrangements for the construction of the remaining sections of the railway, and it was not until June, 1908, that the imperial irade was issued which authorized the construction of the line onward to Aleppo and thence to Helif—a few miles west of Nisibin, the point of present completion. Two additional issues of Bagdad Railway Co. loans—the second of 108,000,000 francs and the third series of 119,000,000 francs—were authorized.

*Young Turk régime.*—However, the Young Turk Revolution of 1908, which deposed Sultan Abd-ul-Hamid, prevented the company from proceeding immediately with the construction of the remainder of the line. But the following year (1909), a German and French syndicate underwrote the second and third series of the Bagdad Railway bonds and simultaneously formed a construction company to carry on the work through the Taurus and the Amanus Mountains (Giaur-Dagh).

The Young Turk régime, however, encountered severe financial difficulties which were incurred by the war with Italy over Tripoli, and it was therefore unable to assign further revenues for the payment of the railway guaranties. By an additional convention of

Digitized by Google

1911, the Bagdad Railway Co. agreed to proceed with the construction of the railway as far as Helif without further payments from the treasury of the Ottoman Government, and at the same time renounced its rights to construct the railway beyond Bagdad. Additional financial difficulties beset the Deutsche Bank group, and construction work proceeded slowly. The tunnels through the Amanus Mountains were begun in 1914, a steel bridge spanning the Euphrates was erected, and a certain amount of rails were laid east of Aleppo.

*World War period.*—With the outbreak of the World War in August, 1914, and Turkey's subsequent entry in October, 1914, on the side of the Central Powers, the construction of the Bagdad Railway through the Taurus Mountains was carried on as rapidly as possible. The tunnels through the Taurus and Amanus Mountains, a remarkable engineering feat, were not completed until September, 1918. The first through train to Aleppo was operated just a few weeks prior to the British occupation of that city in October, 1918. Up to that time the company had completed construction of the line as far as Nisibin (some 300 miles north of east from Aleppo), or a total stretch of 650 miles from Konia, the starting point.

*Disposition under Versailles treaty.*—As the treaty obligated Germany to renounce all interests of German nationals in public utilities in Turkey, 13,510 shares of Bagdad Railway stock held by the Deutsche Bank were transferred to the Reparations Commission by the German Government, with a reservation in favor of an option granted by the bank in 1918 to the Anatolian Railway Co. Final disposition of the shares has not been made.

The Bagdad Railway, although gradually reducing the Government expenditures in its behalf prior to the World War, has never been able to operate without the kilometric guaranties. The stretch from Aleppo east passes through a fertile plain, and the section west of Aleppo receives the traffic from two important Mediterranean ports—that of Mersina over the acquired Mersina-Adana Railway (with which it connects at Yenijeh, 20 kilometers west of Adana), and that of Alexandretta over the branch railway connecting with the main line at Kale-Keui station, 3 kilometers north of Toprak-Kaleh. In addition, the main line connects at Aleppo with the railroads, under French control, which serve Syria and Palestine to the south and their principal seaports. Prolific trade routes will thus be connected with their hinterland whenever the extension is completed beyond Nisibin—a bare 100 miles to Kala-Shergat, the present point of completion for the Bagdad end coming northward. Already the important trading center and caravan station of Mardin (85 kilometers southeast of Diarbekir) is connected with the main line at Tel-Abiad by a branch railroad.

## OTHER PROJECTS AND CONSTRUCTION

The period since 1918 has been an eventful one in Turkish history, from a political and military point of view, so that little time or money has been available for extension of existing railway systems or planning of new lines. Nevertheless, the Angora Government, under its policy of spending what funds it has on construction rather than on interest for loans from the outside, is gradually evolving a program for providing a network that will best serve the economic interests of the country and the security of the State.

Digitized by Google

This program, according to Turkish press reports of July, 1925, contemplates two main railway arteries in addition to, or in extension of, those already existing, as follows: (1) Running east-west—from Constantinople and from Smyrna, via Eski-Shehir to Angora, thence eastward to Sivas, and eventually on to Erzerum and the eastern frontier; (2) running north-south—from Samsun on the Black Sea to Mersina on the Mediterranean, via Sivas, Kaisaria, Nigdeh, and Ulu-Kishla (on the Bagdad Railway, 38 kilometers east of Eregli).

### ANGORA-SIVAS-SAMSUN PROJECT

In 1914, in return for a loan of $155,000,000 to Turkey, the French Régie Générale de Chemins de Fer, of Paris, obtained a 30-year concession for a railroad from Samsun to Sivas and Pekerij, with branch lines (*a*) to Argana-Bitlis-Van; (*b*) to Trebizond; (*c*) to Havza-Kastamuni-Bolu; altogether about 762 miles. In July, 1914, the French started work on the Samsun-Sivas line, but were interrupted by the Great War.

The recent aspects of this enterprise appear as a purely State project, fitting into the Government scheme and providing rail transportation between Angora and Samsun, via Sivas.[1] At present work is progressing on a standard-gauge line from each end toward Sivas.

Work on the Angora-Sivas line has proceeded slowly but steadily, with completion and full operation (up to August, 1925) as far as Yakshi-Han, and an additional 150 kilometers has been completed except for a few stretches in particularly rough country. Work on the Samsun-Sivas line, according to Turkish press reports of July, 1925, had carried construction for 28 kilometers on the way from Samsun to Havza. The work on both lines, although necessitating numerous tunnels and bridges and handicapped by inadequate machinery and supplies, has been done exclusively by Turkish engineers and laborers and with Turkish capital, employed by private contractors under Government supervision.

### TREBIZOND-ERZERUM-KARS PROJECT

The purpose of this project is not only to open up the country's eastern resources, but primarily to preserve to Turkey the important

---

[1] The conflict in available sources of information has made it impossible to ascertain with certainty (and therefore to indicate on the map) the routes involved in the Angora-Sivas-Samsun project as being carried out at the present time. However, by comparing maps of the Chester concession railway projects for Turkey, pre-war and post-war (compiled by Col. Lawrence Martin, Chief of Division of Maps, Library of Congress, and published, respectively, in Our World, vol. 1, 1922, p. 56, and in New York Times, Apr. 22, 1923), with the lines named in the Assembly laws granting credits or appropriations (published in La Législation Turque), the following statement is considered as approximating the location of routes under construction in June, 1925.

*Samsun-Sivas line.*—From Samsun southwest 55 kilometers to Havza (20 kilometers northeast of Marsivan); thence south 38 kilometers to Amasia (see railroad map); south 40 kilometers to Zileh (see general map); southeast 42 kilometers to Musa-Keui (south bank of Chekerek-Irmak); southeast 77 kilometers to Sivas. For this route and for the Angora-Musa-Keui route mentioned below the National Assembly, by-laws No. 449 and 450 passed Mar. 23, 1924, authorized a total expenditure of £T65,000,000 over a period of five years, annual installments to be carried in the respective budgets.

*Angora-Sivas line.*—From Angora east and slightly south to Yakshi-Han, 72 kilometers (see railroad map); thence in same general direction 50 kilometers to Cherekli (west bank of Delijeh-Irmak at its great turn to the north—see general map); thence following the north bank of that river southeast 82 kilometers to Haji-Shefatli (40 kilometers south of Yozgad); there dividing, one extension going northeast to Musa-Keui on the Samsun-Sivas line, the other southeast 100 kilometers to Kaisaria and on southward to the Bagdad railway at Ulu-Kishla, but with another extension from Kaisaria northeast up the east bank of the Kizil-Irmak to Sivas. The Kaisaria route is budgeted for 1925–26 to the amount of £T8,170,000, but engineering difficulties make early construction not assured. The Musa-Keui extension, as stated above, was provided for in the 1924–25 budget, but without specifying its share distinct from that for the Samsun-Sivas line.—*Editor.*

Digitized by Google

trade with north Persia which for centuries has found its way to and from the Black Sea over the caravan route between the port of Trebizond and Persian Tabriz, via Erzerum, Bayezid, and Khoi (Hoy), but which now bids fair to be diverted northward via Julfa and Tiflis, over the railways of the Transcaucasian Soviet Republics, to the Black Sea ports of Poti and Batum. At present, efforts are confined to reconstruction of the military railways begun by the Imperial Russian Government during the early years of the Great War to facilitate activity along the former border between Turkey and Russian Armenia.[2]

*Erzerum-Kars Railway.*—The first and most important of these military roads was built, in Russian gauge, from Alexandropol (Gumru, formerly) southeast, via Kars, to Sari-Kamish; from this point it was continued in narrow gauge to Erzerum, and on west as far as Kara-Biyik, where work stopped when the Imperial Government was overthrown. The road thereafter remained practically unused and unrepaired until 1924, when the Angora Assembly in April voted a credit of £T708,515 for reconstruction of the narrow-gauge portion and operating expenses over a series of years. Of this amount, £T40,000 was spent in 1924 and a like expenditure contemplated for 1925.

Meanwhile the Assembly, in April, 1925, ratified the railway convention signed at Tiflis on July 9, 1922, between the Angora Government and the Governments of the Transcaucasian Soviet Republics of Georgia, Armenia, and Azerbaijan, which provided for through traffic arrangements between Sari-Kamish and Batum via Tiflis, over the Alexandropol (Gumru) border station.

*Trebizond-Erzerum line.*—The other Russian military road, starting toward the interior from Trebizond where considerable harbor work was done, had progressed only a few miles when it met the same fate as the eastern military line. In the spring of 1921 the Angora Government took up construction of this line toward Gumush-Haneh, using material left by the Russians; but the work was discontinued for lack of funds, and the few miles of original construction have remained unused. In March, 1924, however, the National Assembly authorized the Government to examine the situation with a view to renewing construction and extending the line to Erzerum via Erzinjan, and in March, 1925, it authorized the entering of a contract up to £T50,000,000 to cover completion of the railway and of the Trebizond port by 1931. The budget for 1925–26 has allotted £T429,500 of this credit for the year's construction and operation.

### INDUSTRIAL RAILROADS

Besides the trunk lines and their branches and extensions described previously, there are at least four short narrow-gauge lines that have been constructed by private concessionaires to serve the needs of their particular industries or regions, and two that have been authorized by the National Assembly to serve State-controlled enterprises.

[2] *Erzerum-Bayezid proposal.*—A third Russian military railroad in narrow gauge (not shown on railway map) was constructed from Shahtakhta (on the Tabriz-Alexandropol line, 100 kilometers southeast of Erivan) westward, via Bayezid, to Kara-Kilisseh (see general map), along the course of the Maku River. It is proposed to take care of the Erzerum-Bayezid section of the caravan route, either by repairing and extending this military branch westward to Erzerum or by improving the highway to facilitate motor transport.

Digitized by Google

*Eregli coal basin lines.*—A network of light railways at one time connected the 400 mines of the Eregli Basin with the port of Zunguldak, but some of these have fallen into disuse through war depredations and subsequent lack of labor. Another coal road about 15 kilometers long serves the coal port of Baba-Burun just above Eregli; but with the taking over by the Angora Government of the Eregli coal fields, coal exportation through the port of Zunguldak was made obligatory.

*Eregli lumber line to Kara-Dereh.*—In order to facilitate better forest exploitation in the heavily wooded regions of Bolu and Kastamuni, the Assembly in January, 1925, authorized a credit of £T2,000,000 over the years 1925 and 1926, to be expended by the Ministry of Agriculture in constructing a narrow-gauge railway from Eregli to the Kara-Dereh. [From information available, it is not clear whether the Kara-Dereh referred to is the mountain stream whose headwaters are in the sawmill district some 15 kilometers north-northwest of Bolu city and 50 kilometers south and slightly east of Eregli, or whether it is the mountain stream some 45 kilometers east of Eregli which flows into the Filias-Chai just north of the mouth of the Bolu-Su.—*Editor.*]

*Balia-Maaden line.*—These privately owned mines, in the Balikisir Province, have a narrow-gauge line running northwest to the coal and lignite beds at Manjilik, which form part of the Balia concession and furnish all its fuel; the same line extends south to Osmanlar, on the cross-country highway which connects to the west with the Gulf of Edremid at the little port of Ak-Chai, just west of the city of Edremid, and to the east with the Soma-Panderma Railway.

*Samsun-Charshamba line.*—In September, 1924, construction started on a narrow-gauge line from Samsun to Charshamba (38 kilometers to the southeast), with option on an extension eastward to Terma near the coast (18 kilometers) and an option on a branch from Samsun northwest to Bafra (48 kilometers) and from Bafra northwest to Alacham near the coast (28 kilometers). The work is being done, under a 75-year concession, by a Turkish corporation, using exclusively Turkish capital and employing only Turkish engineers and laborers. The concession calls for double-tracking as soon as receipts produce a net surplus. Eventually this line, which must be completed within one and one-half years, will tap a countryside on the Black Sea coast that is rich in forests, minerals, and tobacco.

*Argana-Diarbekir-Arada line.*—This project is intended to give an outlet for the product of the State-controlled copper mines at Argana, by way of the Bagdad Railway to the Mediterranean port of Mersina. Its narrow-gauge line is planned to connect, via Diarbekir, with the main line at Arada, just west of Tel-Abiad, the junction point of the Mardin branch. For this project the Assembly in March, 1924, authorized a credit of £T2,738,000, of which £T1,000,000 was allotted in the budget for 1924–25 and the remainder (£T1,738,000) in the budget for 1925–26.

### INDEFINITE PROJECTS

In addition to the aforementioned railway projects and construction, for which definite appropriations have been voted by the National Assembly, a number of other projects are being urged

Digitized by Google

upon or by the Government as fast as public funds are available for that use. The more important of these are: (*a*) The construction of a line from Angora to Eregli, tapping the richest forest region in Turkey and fueling the entire Anatolian railway system from the Eregli coal mines, now accessible only by sea; (*b*) a short cut for the Angora-Sivas-Samsun railway, connecting Cherekli (95 kilometers east-southeast of Angora, and on the Angora-Kaisaria-Sivas route) northeastward, via Sungurlu and Chorum, with Haji-Bairam (13 kilometers east of Marsivan, and on the Samsun-Sivas route); (*c*) a 50-mile line connecting the city of Kastamuni with the Black Sea port of Inebolu and opening a rich forest region; (*d*) a branch of the Smyrna-Aidin railway to connect northward with Afion-Kara-Hissar and another southward with Makri; (*e*) a line connecting Sivas southeastward with Harput and eventually with the Bagdad railway; (*f*) finally, the railway service on the eastern frontiers, the plans for which are contingent upon the results of the railway convention with Russia and the Transcaucasian Soviet Republics, concluded in the summer of 1925 but not yet made public.

## RIVER TRANSPORTATION

There are no rivers in Turkey of any importance from the point of view of transportation. As already pointed out in the chapter dealing with geography, Turkish rivers are too short, swift, and shallow to permit of regular navigation. Aside from timber rafts, therefore, the only craft encountered on these streams are rowboats and occasional light power launches.

## HARBORS

Although Turkey's coast line is extensive, its harbors are few, and such as exist are, almost without exception, hampered by lack of technical facilities and suitable connections with the interior. Both from a natural and from an artificial point of view, Turkey's best harbor is that of Constantinople.

### CONSTANTINOPLE

As the meeting place of two seas and of the European and Asiatic Continents and as the crossroads of important land and water routes that find here an excellent harbor, Constantinople is one of the more important seaports of the world.

#### BOSPORUS AND GOLDEN HORN HARBORAGE

The Straits of the Bosporus, leading from the Black Sea to the Sea of Marmora, separate the greater city into two parts, of which the city proper is located on the European side at the southern extremity of the Bosporus. That portion of it known as Stambul is built on a hilly promontory, which extends out from the western side of the straits toward the Asiatic bank and forms the magnificent harbor known as the Golden Horn.

The Bosporus is approximately 16 nautical miles in length, with an average depth of over 180 feet. At the Black Sea entrance

59573—26——5

Digitized by Google

the straits are about 4,000 yards wide. The narrowest portion lies between Rumeli-Hissar and Anadolu-Hissar, where the width is only about 1,200 yards. A normal current of 2 to 3 knots per hour flows from the Black Sea to the Sea of Marmora; with strong north winds, it often increases to 6 knots an hour. Occasionally, after south winds have prevailed, there is a surface current from the Sea of Marmora to the Black Sea.

Ships entering the Bosporus from the Black Sea are forced to stop at the Bay of Kavak for control and quarantine. Ships entering the straits from the Sea of Marmora anchor in the open roadstead at the entrance of the Bosporus, close to the Asiatic side, for control and quarantine. This is a good anchorage place, extending from Leander's Tower almost to Haidar-Pasha.

### PORTS AND QUAYS

The port of Constantinople may be divided into three parts—the outer commercial port, the inner commercial port, and the war port.

*Outer commercial port.*—The outer commercial port extends from the eastern entrance of the Golden Horn (a line from old Seraglio Point on the Stambul side to the Top-Haneh Arsenal on the Galata side) to the first bridge over the Golden Horn (connecting Stambul and Galata and known as the Kara-Keui), a distance of about 1,800 yards. In this outer commercial port the water varies in depth from 22 fathoms on the Stambul side to 19 fathoms on the Galata side. It is buoyed for merchant vessels, which load and discharge their cargoes into lighters.

The "Société Anonyme des Quais, Docks, et Entrepôts de Constantinople" (Constantinople Quays, Docks, and Warehouses, Inc.) has constructed a quay on the Stambul side near the bridge, about 400 yards in length, behind which is located the principal customhouse. The Galata quay is about 800 yards in length, extends from the bridge up to the Top-Haneh Arsenal, and is also equipped with an independent customhouse. Vessels may come alongside, but on account of the high quay charges generally none do so except passenger and mail steamers.

*Inner commercial port.*—The inner commercial port lies between the two bridges over the Golden Horn and is about 1,100 yards in length. It is used chiefly by small sailing craft arriving with local produce from the Black Sea, the Sea of Marmora, and the Aegean Islands. The inner commercial port is also used by lighters and barges awaiting their turn at the customs at the outer commercial port.

*War port.*—The war port extends from the second bridge, a mile or so up the Golden Horn, past the Turkish Ministry of Marine. Both bridges open one hour daily to permit the passage of ships. The water in the so-called war port is sufficiently deep to permit the entrance of the largest warships. On the Stambul side there are no quays, but along the shore a number of small warehouses have been erected. On the Galata side are the buildings of the Ministry of Marine, the Naval Docks, etc.

*Dry docks.*—There are three dry docks near the second bridge belonging to the Turkish Admiralty, which are generally available

Digitized by Google

for any ships requiring repairs. The only other dry dock in Turkey is at the village of Stenia, on the Bosporus about 8 miles above Constantinople. A company called the "Société Anonyme Ottomane des Docks et Ateliers du Haut Bosphore," formed in 1911, constructed in the Bay of Stenia a floating dock with workshops and repair plant. This dock has a lifting capacity of about 8,500 tons.

*Quay concession.*—The Société Anonyme Ottomane des Quais, Docks et Entrepôts of Constantinople (French and British capital), was established in 1891 by an imperial monopolistic concession which granted it exclusive control of the quays and warehouses. Insufficiency of quays and the absence of modern equipment, lighterage and stevedoring charges, together with port dues and quay charges, make the cost of loading and unloading merchant ships in Constantinople excessive.

Against these impositions the Turkish Chamber of Commerce in Constantinople has started a vigorous campaign. It also advocates making Constantinople a free port like Hamburg and Copenhagen.

*Haidar-Pasha.*—On the Asiatic side, at the southern entrance to the Bosporus, lies the port of Haidar-Pasha, the terminus of the Anatolian Railway. The port was built by a Turkish corporation called the "Société du Port de Haidar Pasha," which in reality is a subsidiary of the Anatolian Railway Co., its shares being controlled by the Banque des Chemins de Fer Orientaux of Zurich. The concession for the construction of this port was granted at the same time as the concessions for the Bagdad Railway, and for a while before the war offered preferential rates to German and Austrian steamers with general cargo to be transshipped via Anatolian and Bagdad railways.

The port itself is formed by quays built out from the land. It is protected by a breakwater about 650 yards long, running parallel with the shore. The quays are equipped with modern appliances, traveling cranes, etc.

The Turkish press of July, 1925, reported the awarding of a contract for the rebuilding and equipping, along modern lines and with greatly enlarged capacity and facilities, of the grain elevator at Haidar-Pasha, destroyed during the World War.

### SHIPPING ACTIVITY

During the five years ended December, 1924, the number of ships calling at the ports of Constantinople varied between 3,809 in 1922 and 4,898 in 1924, but their carrying capacity steadily enlarged, as shown by the tonnage figures, which increased annually from a total of 2,472,815 in 1920 to 7,160,573 in 1924.

Reliable statistics as to the nationality of these vessels are available [June, 1925] only through 1923. Until December 31 of that year, ships flying the British flag steadily increased in both number and tonnage, leading all other nationalities in both 1922 and 1923. Italy kept a close second, and France superseded Greece as third. American ships had an irregular record, which declined in relative tonnage from fourth place in 1920 to seventh in 1923. In 1924 American ships numbered 40, and comprised an aggregate tonnage of 138,003, or approximately 2 per cent of total.

Digitized by Google

NATIONALITY OF VESSELS CALLING AT CONSTANTINOPLE PORTS DURING 1920–1923

| Flag | 1920 | | 1921 | | 1922 | | 1923 | |
|---|---|---|---|---|---|---|---|---|
| | Number | Tonnage | Number | Tonnage | Number | Tonnage | Number | Tonnage |
| American | 199 | 266,679 | 124 | 300,277 | 184 | 589,778 | 68 | 222,481 |
| British | 767 | 557,353 | 700 | 204,065 | 779 | 1,488,171 | 983 | 1,994,689 |
| Dutch | 39 | 46,419 | 93 | 121,488 | 149 | 210,754 | 266 | 380,817 |
| French | 335 | 231,318 | 566 | 500,062 | 616 | 644,073 | 533 | 632,087 |
| German | | | 21 | 38,508 | 28 | 38,311 | 118 | 167,651 |
| Greek | 1,091 | 331,203 | 780 | 559,338 | 736 | 614,804 | 316 | 276,283 |
| Italian | 482 | 329,491 | 444 | 385,684 | 573 | 759,962 | 946 | 1,513,180 |
| Rumanian | 110 | 138,537 | 129 | 172,885 | 203 | 284,925 | 319 | 457,564 |
| Russian | 614 | 256,375 | 190 | 64,371 | 77 | 31,042 | 67 | 68,498 |
| Turkish | 131 | 77,331 | 59 | 18,453 | 49 | 29,668 | 290 | 296,322 |
| Other | 527 | 238,109 | 338 | 360,277 | 415 | 473,162 | 475 | 490,606 |
| Total | 4,295 | 2,472,815 | 3,444 | 2,725,408 | 3,809 | 5,164,650 | 4,381 | 6,500,178 |

The larger difficulties standing in the way of retaining the 1924 level of shipping activity, not to mention recovery of the 1913 figure (more than double), will be found in the following conditions:

1. Diminution of population, especially the wealthier portion.
2. Loss of transit trade with Persia and Syria, in favor of Piræus and Saloniki.
3. Loss of transit trade with the Black Sea regions.
4. Loss of Bulgarian and Rumanian markets, which now trade directly with other European countries.
5. Growing tendency of Anatolia to obtain its requirements directly through ports along its own littorals.

### TRANSIT ADVANTAGES

Constantinople owes its importance as a seaport not so much to the advantages offered by it, although its bunkering facilities for both coal and fuel oil are fair, as it does to its relative position to the Black Sea and the countries whose traffic inclines toward the Black Sea. Prior to the war only about 15 per cent of the ships calling at Constantinople made this port their final destination; the rest were in transit to Russian or Danubian ports.

Because of the importance of this transit trade to the economic life of the city, Constantinople's future is thought to be wrapped up with the question of bonded warehouses. Possessing no manufacturing industry of its own, nor any agricultural hinterland affording adequate support, the city must depend for its existence upon commerce and shipping. Its location accentuates its value as a distributing center, and, like Copenhagen, it requires free port accommodations. As Copenhagen is the key to the Baltic, so Constantinople is the key to the Black Sea.

### DECLINE AND REMEDIES

The reasons for Constantinople's failure to maintain its commercial prestige within recent years, together with the local efforts at remedy, have been summarized by Col. H. Woods, O. B. E., in his "Report on the economic and commercial conditions in Turkey," published by the Department of Overseas Trade, London, in April, 1924, from which the following extract is quoted.

Digitized by Google

Compared with pre-war days, it is considered that tonnage carried in bottoms of all nationalities to Constantinople has shown a decrease, mainly due to: (*a*) The present conditions of the market; (*b*) the exodus of a large number of Christians established in business in Constantinople and in that portion of the interior obtaining foreign commodities by transshipment: (*c*) the general situation resulting from military operations in Asia Minor during the last few years; (*d*) the excessive specific customs rates on fruits and vegetables and articles of luxury, as well as to the prohibition of alcoholic liquor; and (*e*) to a certain degree, to excessive maritime taxes, port and sanitary regulations. The aforesaid factors have all contributed to Constantinople's decline in importance as a transit center.

It is satisfactory to record, however, that the Government has awakened to the fact that the port of Constantinople, with its natural advantages as a commercial distributing center, is an asset which Turkey can not afford to lose. Some striking instances have been furnished to the Department of National Economy of the grave effects that certain maritime regulations are having on the normal operations of the port, such as unnecessary customs control, lack of authority over the lightermen's guild, excessive manutention and lighterage charges, vexatious sanitary regulations, etc.

Some marked improvements have to be recorded, due to the cooperation of the Maritime Chamber and the Constantinople Chamber of Commerce on the one hand and to the Union Nationale du Commerce Turc on the other, the latter being instrumental in the formation of an Economic Congress, which is submitting recommendations for the improvement of port conditions.

Summarized, they consist of: (*a*) A reduction in the rates for discharging goods into lighters; (*b*) a reduction in lighterage charges and customs porterage; (*c*) a reduction in maritime charges, such as towage and other port services; (*d*) a reduction in maritime taxes, such as sanitary dues, etc.; (*e*) the institution of expeditious customs formalities and the simplification of the same; (*f*) the possible creation of a free zone; (*g*) the transfer to the customs of existing military depots for the use of transit goods; (*h*) the institution of a permanent commission to be known as the port commission, consisting of the captain of the port, the head of the sanitary department, and the director of customs, the chief of the port police, the director of the Seir-i-Sefain, delegates of the Maritime Chamber and of the Turkish Union of Shipowners. This commission to coordinate and regulate port services in general.

The former has already achieved good work in so far as certain reductions in manutention charges are concerned. This mixed commission is concentrating on maritime dues and charges, and will no doubt coordinate its activities with those of the Economic Congress already referred to.

Another commission, recently instituted under the presidency of an exminister in financial and economic matters, is examining the whole question of economic development and reform that is to follow the settlement of the more immediate difficulties which are being dealt with by the Chambre Maritime and the Constantinople Chamber of Commerce and the Economic Congress of the Union Nationale de Commerce Turc.

[The recommendations of this commission, as published early in June, 1925, agree in the main with the foregoing summary and suggest relinquishment by the State of commercial activities and, almost without exception, reduction of the customs tariff.]

## SMYRNA AND OTHER AEGEAN PORTS

Smyrna is the principal export shipping point of the country and plays an important rôle as a distributing center for a rich and extensive hinterland, as well as for many of the near-by islands. It lies at the head of the Gulf of Smyrna and has an excellent harbor. The water front is protected by a quay, and there is a small inner harbor having a depth of about 34 feet. Ships entering Smyrna for only a short call sometimes anchor outside in the harbor, near the shore quay, where the water averages 15 to 18

Digitized by Google

feet in depth. Loading and unloading is done by means of lighters and ships' tackle.

Smyrna is also the terminus of the Smyrna-Aidin and the Smyrna-Kasaba railways. The Smyrna-Aidin Railway has constructed large warehouses and a pier at the north end of the city, close to its terminus. It is, therefore, possible to ship goods coming down by rail from the interior directly from the Smyrna-Aidin Railway pier.

### SHIPPING ACTIVITIES

Until September, 1922, activity in the harbor of Smyrna surpassed that of preceding postarmistice years. It had become a regular port of call for the merchant vessels of approximately 20 American, British, French, and Italian lines, and was not infrequently visited by vessels of other flags. The coastwise and Mediterranean traffic was handled largely by Greece. Smyrna figured also on the schedule of several large passenger lines, principally Italian and French. The fire of September, however, destroyed practically all freight available, paralyzed production, and affected passenger travel, so that commercial and passenger traffic in the harbor during the last three months of 1922 decreased at least 75 per cent as compared with any other quarter of that year. It will take Smyrna several years to recover.

Of the 1,829 vessels entering Smyrna harbor during 1923, with an aggregate tonnage of 1,461,607, steam vessels accounted for 974 with a total tonnage of 1,260,510; these included 325 Italian, 217 British, 164 French, and 105 Turkish. Sailing vessels numbered 811 (including 713 Turkish) and had an aggregate tonnage of 20,390. Vessels stopping outside the breakwater numbered 44, with an aggregate tonnage of 180,707.

### MINOR AEGEAN PORTS

Scala Nova (Kush-Adasi) or Makri farther south as possible rivals of Smyrna is but a remote contingency, for trade routes established through centuries are not easily diverted; but it is admitted that Makri possesses perhaps the finest natural harbor in Anatolia. Dikeli, to the north of Smyrna, and Aivali, on the south shore of Edremid Gulf, play some part in the coastwise trade of the region.

## MERSINA AND OTHER MEDITERRANEAN PORTS

Mersina, on the Mediterranean, is the third important port of Turkey, serving the fertile regions of the Cilician Plain and particularly the most progressive cotton-growing region of Turkey. Ships calling at Mersina are forced to anchor in the open roadstead, about a mile off shore, and all loading and unloading is done by means of lighters. Although the anchorage is exposed, it is generally considered safe for ships in any weather. The Grand National Assembly of Turkey, on April 19, 1924, appropriated £T8,000,000 (about $4,160,000) for the construction of a modern port at Mersina, but the project is not expected to be completed until the end of the 1927 fiscal year (February 28, 1928).

Digitized by Google

During the year ended September, 1923, the port was used by 279 commercial steamships having a total tonnage of 466,677, according to figures given out by the captain of the port. This number included 125 Italian ships, 91 English, and 49 French.

Adalia, the only other Mediterranean port of consideration in Anatolia, is important chiefly for its coastwise trade.

## OTHER PORTS OF ANATOLIA

### SEA OF MARMORA

*Izmid.*—Although unimportant as a commercial harbor, Izmid (ancient Nicomedia) at the northeastern extremity of the Sea of Marmora, deserves mention because of its natural advantages as a port and because the Armstrong and Vickers group in 1913 obtained a concession which includes the building of a floating dock, to be stationed in the Gulf of Izmid and capable of handling the largest warships. The concession, which also covers the dry docks of the Golden Horn, involves a capital outlay of $250,000,000, on which interest and sinking fund are guaranteed by revenues administered by the Ottoman Public Debt Commission. The concession at present is in suspense, pending the termination of negotiations between the Government and the concessionary.

*Panderma.*—As the terminus of the railroad to Soma, Panderma on the south shore of the Sea of Marmora bids fair to attain considerable importance. Quays have been built by the Smyrna-Kasaba Railway Co., and the former breakwater has been repaired. It is deemed likely that several feeders to the railroad will be constructed, and that the port of Panderma, drawing trade from the Biga and Brusa regions, as well as from the south, will increase its commercial relations with the outside world.

*Minor ports.*—Deserving of passing mention, though still undeveloped for more than coastwise trade, are Gemlek and Mudania on the southeastern shore of the Sea of Marmora, and Rodosto and Gallipoli on the European shore.

### BLACK SEA

*Trebizond.*—In 1911, the National Bank of Turkey (British) secured an option for the construction of a harbor at Trebizond on the Black Sea, and surveys were made by Sir John Jackson (Ltd.). During the war the Russians built a breakwater and installed cranes; they also built some roads.

As an outlet for the caravan trade of the upper sections of Iraq and Persia, Trebizond for centuries has enjoyed a certain commercial prestige. Under modern conditions, however, it is likely that Samsun, as the terminus of the projected Angora-Sivas-Samsun railroad and of the prospective railroads from Sivas to Erzinjan and from Sivas to Harput, will attain preeminence. Although a railroad is scheduled to be built across the mountains from Erzerum to Trebizond, the expense of construction as compared with the probable traffic is not likely to permit the enterprise to be completed in the near future. The trade of Erzerum, provisionally at least, will pass through Batum.

Digitized by Google

*Samsun.*—The option which the National Bank of Turkey obtained in 1911 in reference to Trebizond applied also to the neighboring port of Samsun. But beyond making a survey, which indicated that the expense involved would exceed $4,000,000, the British did not proceed. The war broke out, and all work was dropped. Samsun consequently still is an open roadstead. Some cranes and piers facilitate the traffic of the port, but vessels anchor quite a distance off the shore. A moderately satisfactory automobile road follows the old Bagdad caravan trail as far as Sivas.

*Sinop.*—At Sinop there is a fairly good natural harbor, perhaps the best on the Black Sea coast of Turkey. But although prior to the war quite a number of steamers made the city a port of call, it does not appear that this place is likely to play any conspicuous rôle for the time being. Many of the inhabitants, who were mostly Greeks, have left under the convention with Greece for exchange of populations.

*Inebolu.*—Among the harbor concessions granted the French group, from which in 1914 the Turkish Government obtained a loan of $155,000,000, was one for Inebolu, also on the Black Sea (the others were for Jaffa, Haifa, and Tripoli on the Syrian coast). While not particularly favored by nature as a harbor, Inebolu has certain possibilities which became manifest during the two years when Angora, owing to the Turkish Nationalist movement, was cut off from direct intercourse with Constantinople. A motor road connecting Inebolu with Angora was much utilized for both goods and passenger traffic. As an outlet for the hitherto untouched wealth of the province of Kastamuni, Inebolu may rise into permanent prominence.

*Coal basin and other minor ports.*—Deserving of mention are Zunguldak, Kozlu Bay, and Eregli, the outlets of the Eregli coal basin, through which Turkey's coal production is distributable. Zunguldak has undergone considerable development, and is the only Turkish port of the Black Sea where vessels may moor alongside the quay or breakwater.

Other Black Sea ports, worthy of mention by reason of their coastwise trade, are Kerasund, Tireboli, and Ordu.

## FERRY SERVICES

Passenger traffic on the Bosphorus and Golden Horn, and to the Princes Islands and the Asiatic coast of the Marmora, is in the hands of three companies which operate steam ferries.

The Turkish corporation, called the "Shirket-i-Hairieh" Navigation Co., has a concession giving it a monopoly in the operation of passenger steamers on the Bosporus. This company is purely Turkish in that only Turkish subjects may own shares in it. The capital is £T200,000, divided into 40,000 shares of £T5 each. The company operates a number of steamers which leave from the Galata bridge, Constantinople, at regular intervals, making stops at the more important suburban villages on the Bosporus as high up as Anadolu-Kavak at the entrance of the Black Sea.

The Seir-i-Sefain (Shipping Board) operates a passenger ferryboat service between the Kara-Keui bridge and the Princes Islands, including stops at Haidar-Pasha, Kadi-Keui, and other points on the

Digitized by Google

Asiatic shore of the Marmora. This company is Government-owned and is referred to hereafter in connection with the Turkish mercantile marine.

The Golden Horn Boats (Inc.) has a monopolistic concession for the operation of a passenger ferryboat service on the Golden Horn. Ferries leave the Galata bridge at regular intervals and touch at important points on the Golden Horn as high up as Eyub.

## SHIPPING SERVICES

### FOREIGN TRANSOCEANIC

In all, as many as 230 foreign steamship companies, representing some 20 different nationalities, send steamers to the various ports of the Levant and the Black Sea, in either regular or tramp service. The larger number of these ships either call at Constantinople with cargo or pass through in transit.

The following foreign steamship companies maintain regular oversea freight and passenger services with Turkey.

| Nationality | Name of company | Leading port |
|---|---|---|
| American | A. H. Bull & Co | New York. |
| | Export Steamship Corporation | Do. |
| Belgian | Lloyd Royal Belge (Ltd.) | Antwerp. |
| | Société Belge de Pétrol | Do. |
| British | Ellerman Line (Ellerman Lines, Ltd.) | Liverpool. |
| | Ellerman Wilson Line (Ltd.) | Hull. |
| | H. E. Moss & Co | Liverpool and London |
| | Ellerman Papayani Line | Liverpool. |
| | The Khedivial Mail Steamship & Graving Dock Co. (Ltd.). | Alexandria. |
| | White Star Line | Liverpool. |
| Bulgarian | Société Commerciale de Navigation Bulgare | Varna. |
| Dutch | Koninklijke Nederlandsche Stoomboot Maatschappij | Amsterdam. |
| | Halcyon Lijn | Rotterdam. |
| Danish | C. K. Hansen | Copenhagen. |
| | F. G. Reinhold | Do. |
| French | Cie. de Navigation Paquet | Marseille. |
| | Messageries Maritimes | Do. |
| | Fraissinet & Cie | Do. |
| | Cie. de Navigation Olivier | Do. |
| German | Deutsche Levante Linie | Hamburg. |
| | Deutsche Orient Linie | Do. |
| Italian | Lloyd Triestino | Trieste. |
| | Societa Italiana di Servizi Marittimi | Genoa. |
| Rumanian | Rumanian Maritime State Service | Constantza. |
| Swedish | Rederiaktiebolaget Sverige-Levanten | Goteborg. |

In addition to the steamers of the above-mentioned lines, a great many other cargo ships of various nationalities, especially British, call at Turkish ports but do not maintain regular services.

### TURKISH COASTWISE SERVICES

Under the commercial convention of the Lausanne peace treaty of July 24, 1923, Turkish coastwise trade (cabotage) is reserved to ships flying the Turkish flag. By agreement, however, the Turkish Government has made special exception for nine foreign shipping lines that previously had maintained regular steamship services in Turkish waters, allowing them to continue to participate in the coastwise trade of Turkey until July 1, 1926. These 9 foreign shipping concerns consist of 3 British lines, 3 French lines, and 3 Italian lines.

59573—26——6

Digitized by Google

### SEIR-I-SEFAIN

Prior to the war the bulk of the coastwise trade of Turkey was carried on by small Greek and Russian steamers, although certain privately owned Turkish sailing vessels and the Seir-i-Sefain also contributed in considerable measure. The Seir-i-Sefain owns and operates the bulk of the Turkish mercantile marine. It is in reality the Turkish Shipping Board, being a Government owned and controlled company which receives from the State treasury funds in an amount equal to the yearly deficit. According to the latest report from this company, it has the following steamers, not including numerous tugs and lighters:

| | |
|---|---|
| First-class steamers (registered gross tonnage, 21,977) | 8 |
| Second-class steamers (registered gross tonnage, 9,416) | 8 |
| Third-class steamers (registered gross tonnage, 16,000) | 6 |
| Small coastwise steamers (totaling 6,400 tons) | 15 |
| Salvage boat (360 tons) | 1 |
| Tanker (190 tons) | 1 |
| Total (gross tonnage 54,343) | 39 |

### TURKISH MERCHANT MARINE

The strength of the Turkish merchant marine, as of November 1, 1923, was estimated by the Turkish Chamber of Commerce at 82,948 tons, as against 110,000 at the beginning of the war. Of the vessels in 1923, the Seir-i-Sefain controlled 35 of 37,494 tons, and 6 of these exceeded 3,000 tons each.

The total tonnage of the Turkish merchant marine early in 1925 was stated by the captain of the port of Constantinople to be about 560,000 tons. During the little more than two years since the Mudania armistice, Turkish interests have acquired 350 vessels, including those purchased by the Seir-i-Sefain. Of these, about 130 are fairly large (5 are of 5,000 tons each), 40 are tugboats, 28 are motor boats, and 65 are motor-driven lighters. Since June, 1924, 40 steam and motor-driven vessels have been acquired. Although the majority are obsolete and uneconomical of operation, their low purchase price is said to permit profitable operation for some time to come.

## POSTAL SERVICE

### ORGANIZATION AND ADMINISTRATION

Turkey's first adherence to the International Postal Convention took place in 1874, when it became a signatory to the Berne Convention, and its first serious attempt toward the organization of a postal administration was made in 1875.

In pursuance of this policy, a British specialist was engaged by the Government in 1879 to organize the internal postal service and start an international service for the Turkish Post Office Administration. An administrative council was organized in 1901, charged with the administration of Turkish posts and with the supervision of the various provincial postal agencies; but it was not until the revolution in 1908 that local post offices for the delivery of letters existed.

Digitized by Google

With the advent of the Turkish constitution in 1908, improvements were made in the postal service; but these still left much to be desired, and it was only shortly before the outbreak of the Great War that conditions were bettered to any great extent. Even than the betterment was manifested more in dealing with mails for foreign delivery than with mails for the interior, and it was brought about through the desire of the Government to compete with the foreign post offices operating within its territory.

## FOREIGN POST OFFICES IN TURKEY

During the existence of the capitulations, six European countries—Austria, France, Italy, Russia, Great Britain, and Germany—maintained post offices in Turkey. Although the first foreign post offices in Turkey were established in the sixteenth century, Austria in 1748 was the first to organize its service there. It was followed by the Russian post office in 1799, the French in 1812, the British in 1832, and the German in 1870.

The Turkish Government made numerous protests against the maintenance of foreign post offices, but without result. They accepted all mail from their respective countries, destined either to Constantinople or other Turkish ports where they maintained branch offices. They also carried mail for any destination abroad. In most instances the headquarters of the foreign post offices were located in Constantinople, with branches maintained at Smyrna, Saloniki, Beirut, and other ports.

## ASSUMPTION OF TURKISH CONTROL

At the outbreak of the World War in 1914 the Turkish Government took advantage of existing propitious circumstances, and on September 8, 1914, notified the foreign embassies that the capitulations would be abrogated on October 1, 1914. On that date the Turks closed the foreign post offices. After the armistice of Mudros and the allied occupation of Constantinople, the British, French, and Italian post offices were reopened, first under military control and later under civil postal administration.

Following the signature of the Lausanne treaty, July 24, 1923, by which the allied powers recognized the abrogation of the capitulations, all foreign post offices in Turkey were discontinued. By virtue of this treaty Turkey agreed to remain a party to all conventions and agreements of the Universal Postal Union, and to adhere to and fulfill her obligations under the provisions of the Universal Postal Convention of Madrid, to which Turkey was a signatory party on November 30, 1920.

After the evacuation of Constantinople by the Allies (October 4, 1923), the assumption of the entire postal service by the Turkish authorities was marked at the beginning by a good many irregularities. The service has gradually improved, however, and was functioning fairly well until a strike for higher salaries on the part of postal clerks and letter carriers, in July, 1924, temporarily unsettled the distribution of mail. The service with foreign countries is being given special attention, but the difficulties involved in the transportation of mail in the interior, particularly to some of the

Digitized by Google

more remote districts of the country, are not likely to be overcome before the establishment of better communication facilities.

### AIR MAIL SERVICE

As a means of improving the postal service in the interior, the Turkish Government has been contemplating the transportation of mail from Constantinople to various points in the Provinces by airplane.

Aerial postal service between Constantinople and Angora was organized at the beginning of September, 1924, and a daily service after the middle of that month was promised by the Direction of Posts and Telegraphs. A provisional rate for dispatch of letters by aerial service between the two cities was fixed at 10 piasters (about 5 cents) per 20 grams, and only nonregistered letters were accepted for airplane dispatch. The service, though discontinued after a few weeks, is receiving renewed public interest a year later.

## THE TELEGRAPH

### ORGANIZATION

The first telegraph service in Turkey was established at the time of the Crimean War. The first line from Constantinople to Adrianople was opened on August 16, 1855, and was subsequently linked up with the Austrian telegraph system by way of Rustchuk, Bulgaria. The Turkish telegraph system since then has developed rapidly until it is fairly complete throughout the country.

Telegraph service is a Government monopoly and under the control and direction of the Ministry of Posts, Telegraphs, and Telephones, at Angora. Turkey became a party to the international postal and telegraphic convention, signed at St. Petersburg in July, 1875, and also adhered to the subsequent international telegraphic regulations which were fixed by the convention of Budapest in July, 1896.

### OPERATING COMPANIES

The development of the Turkish telegraphic service is in part due to two foreign telegraph companies which obtained concessions from the Government to do business in Turkey—the Eastern Telegraph Co. and the Ost-Europaeische Telegraphen Gesellschaft.

*Concessions.*—The Eastern Telegraph Co. established the following cable lines connecting with Turkey: (*a*) Constantinople-Chanak-Syra; (*b*) Tenedos-Lemnos-Saloniki; (*c*) Tenedos-Khio-Cheshmeh; (*d*) Rhodes-Sitia-Candia-Retimo-Canea; (*e*) Constantinople-Odessa.

The Ost Europaeische Telegraphen Gesellschaft established the Constantinople-Constantza cable.

*War vicissitudes.*—During the war the Constantinople-Syra cable of the Eastern Telegraph Co. was cut, as were communications over the Constantza cable; the latter resumed its activity only after the occupation of Rumania by the German Army.

*Postwar changes.*—After the armistice of Mudros in 1918 and the occupation of Constantinople and Smyrna by the Allies, the Eastern Telegraph Co. reorganized its cable service with Constantinople and installed a new cable, connecting Smyrna to its system.

Digitized by Google

The Constantza cable was taken over by the French military authorities, and after the evacuation of Constantinople by the Allies in 1923 it passed into the hands of the Rumanian Government. In December, 1923, the Rumanian and Turkish administrations of posts, telegraphs, and telephones concluded an agreement whereby the proceeds from the Constantza cable would be divided in equal shares between the two countries. Both countries agreed to keep their respective parts of the cable in good condition, and the Rumanian telegraph service also agreed to reestablish, as soon as possible, the Constantinople-Bucharest-Berlin line.

### PRESENT SERVICE

The Eastern Telegraph Co., as the result of a dispute between the company, the Turkish Government, and the Greek Government over Smyrna receipts during the Greek occupation of Smyrna, has provisionally withdrawn from Turkey and ceased to operate its lines.

Telegrams to Europe are now transmitted (*a*) from Constantinople to Sofia and thence to points in Europe, (*b*) via cable to Constantza, or (*c*) over the Turkish telegraph line to Saloniki and thence by Eastern Telegraph lines. The Constantinople-Odessa cable is once more functioning, and as a result telegraphic communication with Russia, Transcaucasia, and Persia is possible.

Telegraphic communication between Constantinople and Turkey as a whole is at present both unsatisfactory and inadequate, being subjected to long delays and often lost in transmission and delivery.

## THE TELEPHONE

Prior to 1908 there was no telephone system in Turkey. The first telephones were installed by the Turkish Government in that year, to connect the various departments of the Government and public offices, but no private installations existed.

### CONSTANTINOPLE SERVICE

On May 6, 1911, the Société Anonyme Ottomane des Téléphones de Constantinople (Constantinople Telephone Co, Inc.), an Anglo-American concern, obtained a concession from the Government for the construction of a telephone system at Constantinople and its environs, the concession to run for a period of 30 years, with the privilege of extension for an additional 10 years. The company is incorporated for £450,000, of which £250,000 was subscribed and paid in shares of £5 each. The Government receives a royalty of 15 per cent of the gross revenues. By virtue of this concession the company made its installations, and private service was inaugurated in 1913.

Following the conclusion of the Lausanne peace treaty in 1923, the validity of the concession was recognized by the present Turkish Government, and the company was permitted to continue its operations in Constantinople. There are approximately 4,000 telephones in use in the city of Constantinople, and the service compares favorably with that of other countries.

Digitized by Google

### OTHER SERVICES

In addition to the Constantinople city telephone service, long-distance telephone communication between Constantinople and Adrianople was established in the winter of 1923–24, and it is hoped that the service may ultimately be extended to Sofia, Bulgaria.

In the fall of 1923 long-distance service was authorized between Constantinople and Smyrna, to be operated by the Constantinople Telephone Co. In the following winter the National Assembly authorized a concession for general installation of telephones in the city of Smyrna, but it was not signed by the Minister of the Interior until the early summer of 1925. The concession, which runs for 35 years, provides for a system to embrace the suburbs of Kordelio (across the harbor to the north), Burnabat (5 kilometers northeast of Smyrna), Buja (5 kilometers to the southeast), and Balchova (8 kilometers to the southwest).

A telephone long-distance trunk line between Constantinople and Angora has been practically completed, and inauguration only awaits the installation of the automatic local telephone service which is expected to be completed by February, 1926.

## RADIO

### OFFICIAL INSTALLATIONS

The first wireless telegraph station in Turkey was constructed on the premises of the War Office at Constantinople in 1913, under the direction of General Liman von Sanders, who headed a German military mission engaged by the Turkish Government for the reorganization of its army. Shortly before Turkey's entrance into the World War, a large wireless station was erected for the Government at Ok-Meidan on the heights above the Golden Horn, by the Siemens-Schuckert Co., and during the war the same company built a second and larger wireless station at Osmanieh, 4 miles out from Constantinople. Both stations functioned during the war and kept the Turkish Government in touch with Berlin.

During the period of occupation by the Allies, 1919–1923, these wireless stations were taken over by their military forces, and in May, 1922, the military authorities published a notice prohibiting the sale of wireless apparatus in Constantinople and in the zone of the allied occupation.

*Recent commitments.*—After the evacuation by the Allies on October 2, 1923, the wireless stations at Ok-Meidan and Osmanieh were again taken over by the Turkish Government—the one for local communication with shipping, the other for official international messages. Neither has yet been available for commercial uses and both are greatly in need of repair, although the Ok-Meidan continued to operate throughout 1924.

The National Assembly, on February 19, 1925, authorized the Minister of the Interior to contract for a £T2,250,000 high-power wireless station at Angora, to be completed at the end of three years, and for the creation of a network of radiotelephones in the interior of the country for broadcasting uses; also, for the repair of the Osmanieh station at Constantinople. After several months of bidding

Digitized by Google

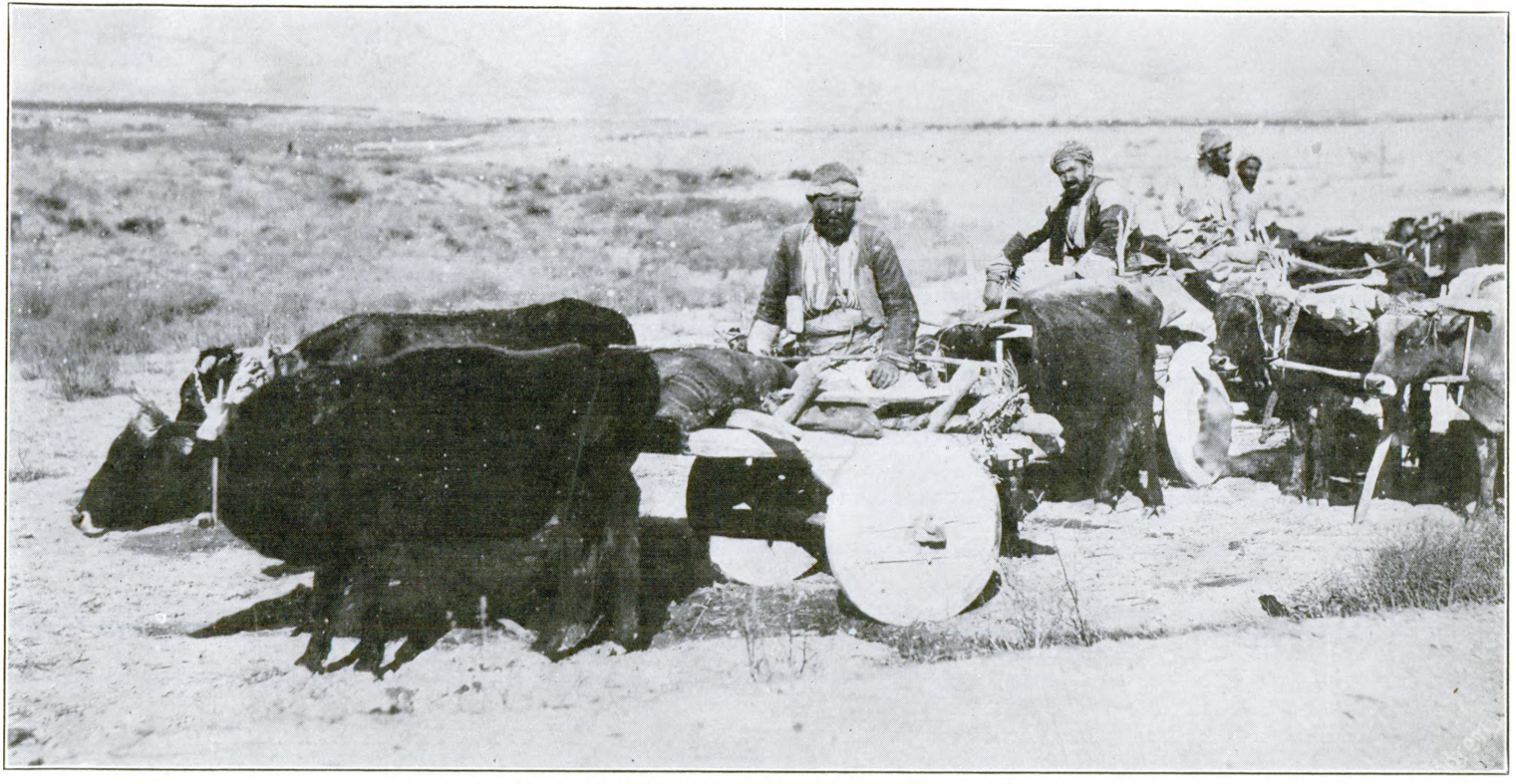

FIG. 5.—PEASANT OXCARTS IN THE PROVINCE OF AFION-KARA-HISSAR

Digitized by Google

FIG. 6.—THE CARAVAN MEETS THE RAILROAD AT LEFKEH

Digitized by Google

and counterbidding, the contract was finally let to the French Wireless Telegraph Co. in the summer of 1925 for £T1,569,000, the Constantinople plant to be ready for operation by June 12, 1926, and the Angora plant by the following December 12.

According to Turkish press reports, the Angora plant will consist of a transmitting station with a 250-kilowatt transformer operated by a 600-horsepower Diesel motor, a receiving station, and a broadcasting station with a 1,500-kilometer radius. The Constantinople plant will comprise similar but less powerful units, except that the broadcasting station will have the same 1,500-kilometer radius.

## PRIVATE INSTALLATIONS

In October, 1923, the Turkish Government issued orders prohibiting the use of private wireless sets in that country. Late in October, 1924, however, this action was reversed, and elaborate regulations were drawn up by the Direction General of Posts, Telegraphs, and Telephones, which permit the installation of private wireless telegraphs and telephones. So far as can be learned at the present time (June, 1925), no order has been issued regarding the date on which these regulations shall go into effect and installations be allowed to function.

Several applications for permits have been received thus far, among them one from a daily paper and one from a moving-picture theater. At the present time there are no local dealers in Constantinople who carry radio telephone and telegraph receiving sets; but it is believed that this will become a regular business in the not distant future.

The substance of the regulations issued by the Direction General of Posts, Telegraphs, and Telephones, defining the conditions under which private installations may be made are given below.

The regulations governing the installation of private wireless telegraph and telephone receiving sets in Turkey provide that any private individual or "moral person" may install on his private premises wireless receiving sets, subject to the following conditions:

### SECTION A.—*Installations on land*

1. Installations shall be composed only of "receiving sets"; the use of "transmission sets" is prohibited.
2. Applications for the permission of such installations must be submitted in writing directly to the Direction of Posts and Telegraphs.
3. Applications must indicate:
(*a*) A technical detailed description of the sets to be installed, the name of the factory where the set was manufactured, the wave length, the plan and general disposition of the respective installation, etc.
(*b*) The exact reason for the installation and the particular kind of correspondence or conversation which is to be received.
(*c*) The social status and nationality of the applicant.
(*d*) The agreement of the applicant to submit to all regulations and prescriptions governing such installations.
(*e*) The period of time during which the sets are to be operated.
4. Any permission is, however, subject to the approval of the General Staff of the Army.
5. The Direction of Posts and Telegraphs has an absolute right of control over all existing installations.
6. The permission granted for installation of private wireless receiving sets may be canceled and the sets confiscated—

Digitized by Google

(*a*) If the owners infringe internal and international regulations governing wireless communications.

(*b*) If the owners use their installations for another object than the one indicated in their application.

(*c*) If they hold up foreign communications which are not destined to them.

(*d*) If they cause disorder in official or other telegraph or telephone communications.

7. The sets to be installed must have no connection whatever with electrical or mechanical installations in their neighborhood. The aerial wires (antennæ) must be of the dimension which present technique prescribes for "receiving sets."

8. Inasmuch as the authority granted for the above-mentioned installations does not constitute any privilege, it can not be transferred to a third party, and the Direction of Posts in all events reserves the right to confiscate the sets without previous notice, explanation, or any indemnification whatever.

9. Upon request of the Direction of Posts and Telegraphs, owners of private sets must immediately stop the operation of their installation.

10. An annual tax of 300 piasters will be collected on each wireless receiving set.

SECTION B.—*Installations on the sea*

1. Ships flying the Turkish flag are authorized to install wireless telegraph and telephone sets, provided that the Direction of Posts and Telegraphs is convinced that such installations will not cause any disorder in the transmission of official communications.

2. Vessels sailing in Turkish waters are obliged to communicate with Turkish ports exclusively. Infringements of this provision shall result in the cancellation of the authority given for installation of wireless sets.

3. Officials conducting the wireless service on board vessels must pass an examination at the Direction of Posts and Telegraphs.

4. An annual tax of 300 piasters shall be collected on maritime wireless sets.

Although Section B does not give specific authorization for "ships flying the Turkish flag" to install transmitting sets, it appears to be very clear from the above regulations that it is the intention of the Government to permit such installations.

## COMMERCIAL AVIATION

Airplanes were first introduced into Turkey during the World War. All of these planes were of the fighting type and were used by the army exclusively. Shortly after the armistice, however, an attempt was made to organize a commercial and mail airplane service from Constantinople to Paris, via Bucharest, Belgrade, Vienna, Prague, and Strasbourg.

### CONCESSIONS

In the early part of 1922 the Compagnie Franco-Roumaine de Navigation Aérienne obtained from the Imperial Ottoman Government a concession for commercial and passenger aviation service between Constantinople and Paris. This service was actually inaugurated, but lasted only until the fall of the Constantinople Government later in 1922; it has never been resumed, because of the failure of this company to make a new agreement with the present Turkish Government.

During 1924 the Compagnie Franco-Roumaine and the German "Junker" Aviation Co., as well as an Italian company, were negotiating for concessions which would permit the inauguration of commercial and passenger air service from Constantinople to Paris, and from Constantinople to Angora and Smyrna. The Italian concern

Digitized by Google

has been particularly interested in obtaining the right of inaugurating and operating a commercial and passenger airplane service between Brindisi, Smyrna, Constantinople, and Angora; but so far the project has not extended beyond a hydroplane service (subsidized by the Italian Government) between Rome and Constantinople, via Brindisi and Athens.

In the latter part of the year the Turkish Government awarded to the Compagnie Franco-Roumaine and to the German "Junker" Aviation Co. the right to operate an airplane passenger service between Constantinople and Angora for a period of three months. The flight between these two points, covering approximately 315 miles, required about 2½ hours. The charge for passenger transportation was £T40 (about $22) per single trip. Early in December, 1924, the service was suspended until spring and was not then resumed for regular operation.

## OUTLOOK

There seems little doubt that Turkey will become a very important field for the development of commercial and passenger aerial navigation. Constantinople is of considerable importance as a center for extensive aerial service between the various Balkan capitals, which latter are already connected and served by the commercial and passenger planes of the Compagnie Franco-Roumaine. In addition to the efforts of the French, the Germans, and the Italians to secure airway concessions in Turkey, the British Government has presented a scheme for making Constantinople a station on its London-to-Calcutta airship route. What advantages may accrue to Constantinople and to Turkey by reason of their location on some of the principal airways of the future can yet be only conjectured.

The growing interest in aviation on the part of the Turks themselves has crystallized in the formation of a Turkish Aviation Society, of which a branch was founded in Constantinople in the spring of 1925 and local branches established throughout the country that numbered several score by the end of August. Still greater interest, however, has been aroused with the suppression of the Kurdish rebellion. Not only has the new budget for 1925–26 made provision for aviation, but popular subscriptions have been opened in Turkey and among Turks in the United States for the purchase of airplanes to be presented to the Government. In the fall of 1925 an official commission was appointed to study the possibilities of commercial aviation for Turkey, including the establishment of an airplane factory.

Another feature that is likely to stimulate the rapid growth of commercial aerial navigation in Turkey is the absence of adequate railway communication and the lack of good roads in Anatolia. For instance, an arrangement is reported for transporting ore by air from the Argana copper mines, pending completion of the Argana-Diarbekir-Aradeh railroad, the expense being covered by the difference between the price of the ore at the mines and its price in London.

Digitized by Google

# PUBLIC UTILITIES AND RECONSTRUCTION

By Maynard B. Barnes, American Consul, Constantinople

## PUBLIC UTILITIES

Extensive development in the field of public utilities is one of the aims of New Turkey. There is pressing need throughout the Republic for modern sewer systems, gas and electric power plants, city water systems, street railways, and telephone systems.

Even Constantinople and Smyrna, the only two cities of the Republic in which there has been any real development to date in public utilities, are inadequately served in this respect. Both are without proper sewer systems, and Smyrna has no central lighting system. Both cities are inadequtely served in the matter of transportation. Constantinople, on the European side of the Bosporus, has an electric street railway system, but Skutari, Moda, Kadi-Keui, and their suburbs, totaling 194,000 inhabitants, are without modern transportation facilities. Smyrna, the second city of the Republic and with a population of aproximately 100,000, has only a horse-car system, which serves merely the districts lying along the water front.

[Some of these needed improvements have now been arranged for or commenced, according to reports from the Constantinople consulate through August, 1925. Constantinople, on June 29, 1925, started work on its sewerage system for Stambul; its municipal ice plant was opened on July 25, with a capacity of 50 tons daily and the output furnished to the public at cost; the Seir-i-Sefain, in July, let a contract for erection of a ferryboat station at Kadi-Keui to serve the large commutation traffic between that Asiatic section and the European section of Constantinople; in August the municipality of Constantinople contracted for the erection of a 10,000,000-franc market house at Kadi-Keui; the concession for interurban car service out of Skutari has been transferred to the Constantinople municipality, where it is being actively pushed.

The reconstruction work and telephone concession for Smyrna have been mentioned on previous pages, as well as the improvements in Angora intended to ameliorate the residence difficulties there.

In Brusa, the inauguration of electric service has been promised for October 29, "Republic Day"—an event that should forward the city's use as a watering place.—*Editor.*]

### EMPLOYMENT OF FOREIGN CAPITAL

That this development can not be effected without the participation of foreign capital and foreign construction companies is clear to both national and local Government officials.

Thus far, public utilities in Turkey have been developed on a concession basis, and presumably this method will serve, in the main, as the basis for future development. However, the Government has re-



Digitized by Google

cently shown a disposition to treat with foreign construction companies for such improvement on a contract basis, the Government financing the work to the extent of one-third, and the foreign company, by handling a short-time municipal bond issue bearing a guaranty of the central Government, financing the remainder.

## UTILITY COMPANIES IN OPERATION

The following, which is a complete list of the public utility companies now operating in Turkey, exclusive of railway and port development companies, should serve to indicate the lack of development in this field in Turkey.

### WATER SUPPLY

*Compagnie des Eaux de Constantinople* (*Constantinople Water Co.*).—Founded in 1877 and controlled by French interests, this concern has a concession valid until 1957 for supplying water to Constantinople and its suburbs on the European side of the Bosporus. It has a capital of 20,000,000 French francs.

*Compagnie des Eaux de Scutari et Kadi-Keuy* (*Skutari and Kadi-Keui Water Co.*).—Founded in 1889 and controlled by French and Italian interests, it has a concession for supplying water to Constantinople on the Asiatic side of the Bosporus. Its capital amounts to £T75,000.

*Compagnie Ottomane des Eaux de Smyrne* (*Ottoman Water Co. of Smyrna*).—Founded in 1895 and controlled by Belgian interests, it has a concession valid until 1982 for supplying water to the city of Smyrna and its suburbs. It is capitalized for 3,750,000 French francs.

### ELECTRICITY, GAS, AND TELEPHONE

*Société Anonyme Ottomane d'Electricité* (*Ottoman Electric Co., Inc.*).—Founded in 1911, it is controlled by Belgian interests and has a concession for supplying electric current for lighting and power purposes to Constantinople and its suburbs on the European side of the Bosporus. This company has a capital of 12,000,000 French francs.

*Sociéte Impériale Ottomane d'Eclairage par Gas et l'Electricité* (*Imperial Ottoman Gas and Electric Light Co.*).—Founded in 1894 and controlled by French interests, it has a concession for supplying electric current and gas to Constantinople on the Asiatic side of the Bosporus.

*Ottoman Gas Co.*, (*Ltd.*).—This concern, founded in 1862 and controlled by British interests, has a concession for supplying gas to the city of Smyrna, valid until 1942. Its capital is £100,000.

*Société Anonyme Ottomane des Téléphones de Constantinople* (*Ottoman Telephone Co., Inc.*).—Founded in 1911 and controlled by Anglo-American interests, the company has a concession valid until 1971 for telephone service in Constantinople and suburbs. Its capital amounts to £T275,000

### TRAMWAYS

*Société Anonyme Ottomane du Chemin de Fer Métropolitain de Constantinople entre Galata et Pera* (*Pera and Galata Subway Co.*).—This iompany, founded in 1911 and controlled by Belgian interests, has a concession for operating an underground funicular railroad between Galata and Pera, Constantinople. It has a capital of £T165,000.

*Société des Tramways de Constantinople* (*Constantinople Tramway Co.*).—Founded in 1869 and controlled by Belgian interests, the company has a concession for street railway service in Constantinople on the European side of the Bosporus. Its capital amounts to £T604,027.

*Société des Tramways Smyrne-Gueuz Tepéh* (*Smyrna-Geuz Tepeh Tramway Co.*).—Founded in 1885 and controlled by Belgian interests, this company has a concession for a horse tramway serving Smyrna along the water front and in the southeastern section of the city. The company in 1913 secured a concession for electric street-railway and lighting service in Smyrna, but thus far has not commenced the new enterprises.

Digitized by Google

### QUAYS AND FERRIES

*Société des Quais de Smyrne* (*Smyrna Quay Co.*).—Founded in 1891 and controlled by French interests, the company has, in addition to the quay concession, a concession for a horse-drawn tramway serving the water front in the business and northwestern sections of the city. It has a capital of 11,000,000 French francs.

*Compagnie de Navigation à Vapeur de Golfe de Smyrne* (*Gulf of Smyrna Navigation Co.*).—This company, founded in 1883 and controlled until recently by French interests, had a concession valid until 1915 for ferry service on the Gulf of Smyrna. The company continued operation until 1923, when it was taken over by Turkish interests and an extension of the original concession was secured.

*Société Anonyme Ottomane des Bateaux de la Corne d'Or* (*Golden-Horn Ferry Co., Inc.*).—This company, founded in 1910 and controlled by Italian interests, has a concession for ferry service on the Golden Horn. The company has a capital of £T150,000.

*Compagnie de Navigation Chirket-Hairieh* (*Shirket-i-Hairieh Navigation Co.*).—Founded in 1849 and controlled by Turkish interests, the company has a concession valid until 1953 for ferry service on the Bosporus. It has a capital of £T200,000.

In addition, there are three Turkish concerns exploiting concessions for navigation in a somewhat wider sphere than that in which the above-mentioned ferry companies operate in and out of Constantinople.

## CITIES NEEDING PUBLIC UTILITIES

Following are the populations of 24 Turkish cities, each having 20,000 inhabitants or more, in which there is a real need for development in the field of public utilities:

| | Population | | Population |
|---|---|---|---|
| Smyrna | 98,846 | Trebizond | 26,937 |
| Konia | 71,104 | Kilis | 25,990 |
| Brusa | 64,664 | Diarbekir | 25,457 |
| Adana | 64,110 | Marash | 23,310 |
| Kaisarea (Caesarea Mazaca) | 49,567 | Eski-Shehir | 22,960 |
| Adrianople | 56,347 | Nev-Shehir | 22,670 |
| Ghazi Aintab | 47,930 | Amasia | 21,512 |
| Urfa | 42,751 | Afion-Kara-Hissar | 23,100 |
| Angora | 35,000 | Tarsus | 20,705 |
| Sivas | 31,248 | Erzerum | 20,000 |
| Mardin | 31,077 | Samsun | 20,000 |
| Manisa (Magnesia) | 27,693 | Adalia | 20,000 |

Central lighting systems, gas works, street cars and telephone systems are not found in any of the above-listed cities. In a few of the more progressive of these communities there are small private electric plants, supplying current to a restricted number of clients; but their presence should not militate against development on a larger scale. These cities are also virtually without water and sewer systems. Meager and archaic water systems do exist, but the need for more adequate facilities has at last been recognized. Sewer systems of a sort also exist, but in the main they are simply sparse networks of stone-covered conduits or gutters.

## RECONSTRUCTION

It is the desire of the Turkish Government to enter into contracts with foreign construction companies for the reconstruction of those towns and cities in the devastated areas of the western vilayets, which were destroyed during the fighting of 1920–1922. The list of

Digitized by Google

the larger cities in which the need for reconstruction on a large scale is most pressing includes Aidin, Ala-Shehir, Eski-Shehir, Manisa, Ushak, and Smyrna. The improvements necessitated in Angora, the capital city, are mentioned in the section "Geography," subdivision "Principal cities."

## GOVERNMENT'S CONTRACT PROPOSAL

The Government's proposal is as follows: Reconstruction needs shall be determined by the Government, in collaboration with the company seeking construction work. After agreeing upon the needs of a particular area or city, the Government will enter into a contract enumerating the buildings to be constructed and establishing their prices.

In addition, the contract will contain the following provisions: (1) That the Turkish Government shall provide, without cost, land for building purposes; (2) that upon the completion of each building, the Government shall provide an immediate purchaser; (3) that payment for buildings shall be made on a 20-year installment plan; (4) that, in default of payment, the company shall be reimbursed by the Government; (5) that payments shall be collected for the account of the construction company, by the tax-collecting agency of the Government.

The Government is also disposed to grant customs exemptions on building materials not procurable in Turkey.

Digitized by Google

# IRRIGATION, RECLAMATION, AND WATER POWER

By Herbert S. Bursley, American Vice Consul, Constantinople

## LATENT RESOURCES

Irrigation, reclamation, and water-power projects have long received a great deal of speculative consideration in Turkey. It has already been brought out in the chapter on geography that Turkey possesses numerous short, swift and shallow rivers which are of little value as means of transportation but which are suggestive, even to the untrained, of latent power and irrigation possibilities of almost unlimited extent.

Unfortunately, with rare exceptions, consideration has not advanced beyond the speculative stage or, when it has advanced beyond that point, means have been lacking for practical operations. The result is that the files of the Government and of the engineering profession contain numerous interesting plans for reclaiming, irrigating, and electrifying both large and small areas scattered all over the country.

Few of these plans are brought to public attention, however, either because the Government has not sufficient funds to carry them into execution or because the backwardness of the population does not furnish sufficient hope of profit to justify practical steps.

## PROJECTS AND POSSIBILITIES

### KONIA PLAIN

The most important project of this nature yet undertaken is the irrigation of the Plain of Konia, a vast area in west central Anatolia, lying at an altitude of 3,300 feet and traversed by the Bagdad Railway. This project was carried out between 1907 and 1913 by German engineers, under a concession granted to the Deutsche Bank.

The waters of Bei-Shehir Lake, situated 56 miles west of Konia, were brought up to the plain, via the Bei-Shehir River, the Sogla (or Kara-Viran) Lake, the Charshamba (or Kaya-Agzi) River, and the Kara-Arslan Canal, by damming, canaling, and laying 100 miles of pipe; some 220,000 acres, in addition to 63,000 acres theretofore insufficiently watered, were thus rendered cultivable. The crop found best adapted to the climate of this cold and wind-swept plateau is hard wheat.

Through the partial drainage of Lake Sogla, some 12,000 acres were reclaimed, and this could be extended to 300,000 acres by the completion of the drainage. There also remains to be carried out the irrigation of a large area near Eregli, on the opposite side of the plain from Konia.



Digitized by Google

## CILICIAN PLAIN

A similar scheme for the improvement of conditions in the Plain of Cilicia (the region of Adana between the mountains and the sea, anciently called Cilicia Pedias) has been worked out in detail by German engineers; but no definite steps have been taken toward realization, partly because of the cost, which is estimated at $78,000,000, and partly because of political conditions.

This plain, a very fertile region and the chief cotton-growing district of Anatolia, is watered by the Seihan, the Jeihan, and the Tarsus (Berdan) Rivers, which rise in the Taurus Mountains. Their annual overflow dumps millions of gallons of polluted water into the plain and seriously interferes with agriculture. It is desired to prevent floods, drain swamps, and conserve the water for irrigation during the dry periods; at the same time it is planned to make use of the now wasted power as an important source of " white coal " that is estimated to be capable of electrifying the entire territory, with its cities of Mersina, Adana, and Tarsus.

## SMYRNA REGION

The irrigation projects for this region involve three river basins—the Gediz (ancient Hermus), the Kuchuk-Menderes (ancient Caystrus), and the Buyuk-Menderes (Meander)—all constituting the present great fig and raisin growing area of Turkey, as well as a valuable cotton, tobacco, and rice growing region for the future. In the valley of the Gediz is Manisa (Magnesia), the junction of the Smyrna-Kasaba Railway with its Soma-Panderma branch; between the Gediz and Kuchuk-Menderes is the seaport of Smyrna, with its suburban villages and towns; between the Kuchuk-Menderes and the Buyuk-Menderes are the emery mines of the Tireh region; along the Buyuk-Menderes are the towns of Aidin and Nazilli; and along the river's lower course are the emery-mine fields and railway-branch terminus of Sokia, with the near-by seaport of Scala Nova. While the main purpose of regulating river flow in these regions would be to benefit fruit and cotton growing interests, the water power thereby furnished is estimated to be sufficient for light and power uses in all these urban centers.

Although the plans involve some improvement of the lower course of the Gediz, the principal scheme comprises an extensive irrigation-canal on both the north and the south bank of the Meander, each supplied from a single head reservoir extending between Ortakjeh and Serai-Keui (about 20 kilometers in length and located nearly midway between Denizli and Nazilli). The south-bank canal would receive also the waters of the Dandala-Su, the Ak-Chai, and the Chineh-Chai, the latter regulated from a reservoir in the Karaman district about 35 kilometers southeast of the Chineh-Chai mouth. The north-bank irrigation canal would cease at the point above Sokia where the Meander turns south; this lower course, down to its mouth on the Mediterranean, would be taken care of by the south-bank canal.

The area drained by these streams and their tributaries is placed at some 10,000,000 acres; much of this is now under cultivation, but a great part is either arid or swampy. It is believed that the whole

Digitized by Google

area can be rendered cultivable by drainage and correct control and distribution of the water that is now largely wasted; but the cost, which is placed at $88,000,000, makes the scheme for the time being prohibitive.

## BRUSA REGION

In the Brusa region, already one of the most important agricultural sections of Turkey as well as an industrial center of some moment, several schemes have been discussed for increasing the area of cultivable land and providing industrial power. One scheme has to do with the utilization of the waters of Lake Iznik (ancient Ascanius Lacus), which fall some 250 feet in their transit to the Sea of Marmora and which, properly harnessed to machinery, are believed capable of furnishing 6,000 horsepower.

Another scheme contemplates the generation of 3,500 horsepower from the torrents that flow down from the Mysian Olympus behind Brusa. Still another scheme proposes the diversion of the Sakaria River from its present course into Sabanja Lake and thence to the Sea of Marmora; it is claimed that the realization of this scheme would provide 25,000 to 30,000 horsepower, as well as make possible the reclamation and irrigation of a vast acreage of agricultural land.

There has also been discussed the direction and control of the waters of the Susurlu River (the name given to the Simav below a point just east of Balikisri) and of its tributaries, the Kara-Dere-Su and the Nilufer (Ulufer) Chai, particularly from the point of union with the waters of the Adranos after their reemergence from Lake Abulyond. This, it is said, would reclaim 180,000 acres and irrigate twice that number in addition. At the same time many thousands of acres of land in the vicinity of Lake Abulyond (Apollonia) only require drainage to open them to agriculture.

The putting into active operation of only a part of the plans discussed would greatly improve agriculture and provide power for lighting, for factory operation, and for street and interurban car lines.

## EASTERN ANATOLIA SCHEMES

*Bafra Valley swamps.*—The Bafra Valley, lying between the Black Sea coast and the city of Bafra, near the mouth of the Kizil Irmak, constitutes an area of some 103,000 acres, famed for its tobacco. Unfortunately, a great part of this valley is closed to agriculture and rendered unsuitable for habitation by the swamps created by the overflow of the Kizil-Irmak. It is estimated that these swamps could be drained at a cost of about $5,000,000, and the production of the region increased by fourfold to sixteenfold.

*Lake Van power.*—Lake Van in Eastern Turkey is reputed to be an immense storehouse of energy, easily utilizable through the creation of an artificial waterfall by piercing the rim of the watershed which is only a few yards from the southern shore of the lake. The surface area of the lake is some 2,400 square miles and its depth varies down to 75 feet, so that it is capable of furnishing a tremendous volume of water. The fact that the water is salt, however, might raise technical difficulties in the operation of machinery.

*Mush, Bulanik, Erzinjan, and Erzerum.*—The plains of Mush and Bulanik (west and northwest of Lake Uan), which produce an

Digitized by Google

excellent quality of wheat, aroused the interest of irrigation engineers as early as 1910, and a hydrographic survey was made of the plain of Mush; the matter has since rested at that point. In the same year the Government designated an engineer to make a similar survey of the plain of Erzinjan (150 kilometers west of Erzerum).

In 1913 there was on foot a plan to regularize the flow of the Euphrates in the neighborhood of Erzerum, in order to conserve water for the summer months; but capital was not forthcoming for even a preliminary survey.

## OTHER POSSIBILITIES

Other water possibilities in Turkey, discussed from time to time as to their feasibility for furnishing light, heat, and power, include the utilization of the Bosporus at Constantinople; the Maritza and the Tunja at Adrianople; the Yeshil-Irmak at Tokat; the Kizil-Irmak at Sivas, Kaisaria, and Angora; the Harshut (Kharshut) Falls at Tireboli and possibly the Melet at Ordu, both on the Black Sea coast; the Tigris at Argana; the Ak-Su at Adalia; and a hundred other rapids and falls at as many places.

## OUTLOOK

Latent natural energy is available throughout almost the entire extent of the country. The native in general, however, has not the means and frequently not the desire to make use of this energy, and it is feared that advantage of its existence can only be taken by foreign capitalists incidentally to their search for the products of the mine, the forest, and the field.

What has been said of power applies also to irrigation and reclamation. Throughout the country the drainage of swamps and the diversion and control of streams offer opportunities for the extension of agricultural pursuits. Only the more important of these have been mentioned, but every Province in the country has its arid land within reasonably easy reach of water, and its swamps reasonably easy of drainage.

Little can be expected of the native so long as he persists in his present apathy and so long as the country remains underpopulated. For that reason hope must center in foreign capital, as in the case of the irrigation of the Plain of Konia by the Deutsche Bank, actuated by a desire to increase the revenues of the Anatolian Railway which it controlled.

Digitized by Google

# AGRICULTURE AND THE LAND

## LAND TENURE

As Turkey is primarily an agricultural and pastoral commonwealth, land is the cardinal factor of its economics. How to revise land tenure, inheritance, and mortgage laws so as to insure clear titles and develop private initiative is a paramount problem. The question demands a comprehensive solution along democratic lines, because, under existing legislation and in conformity with traditions, every year automatically adds more of the public domain to the State and withdraws that much land from individual ownership and enterprise.

### CLASSES OF LANDED PROPERTY

Property in Turkey is classified as either "mulk," freehold; "miri," public domain; "mevkufeh," land in mortmain; "metrukeh," public reservations; or "mevat," dead lands.

#### FREEHOLDS

"Mulk," or freeholds, are the absolute property of the possessor, and may be disposed of by the owners as they deem fit.

#### LEASEHOLDS

The use of "miri" property, or public domain, is ceded to individuals against payment of a fixed sum of money, but the actual title remains in the State. The rights of enjoyment may be sold or otherwise disposed of, in whole or in part, with the permission of the State; in the case of the death of the lessee they pass, without further payment, to his heirs at law.

*Lessee's death without heirs.*—In the event of death of the lessee without heirs, the rights of enjoyment pass, upon payment of a new fixed sum of money, (*a*) in equal parts to all persons having inherited "mulk" (freehold) rights in trees or buildings on the land; (*b*) to partners of the deceased; (*c*) to holders of adjoining lands to whom the property is necessary, the property being divided among such if division is possible, otherwise the whole is given to the person having the greatest need thereof, or, if the needs of all claimants are equal, the performance of military service gives preference, and if necessary the matter is decided by lot.

Claimants in the first category are allowed 10 years in which to make their claims, those in the second category 5 years, and those in the third category 1 year. In case none of these claimants exercises his rights, the property is disposed of at auction against payment of a fixed sum of money, as in the case of an original grant.

*Exploitation limits.*—The lessee of "miri" property may not convert it into "mevkufeh" property unless he has first secured a State



Digitized by Google

warrant converting it into "mulk" property. He may, however, cut the trees thereon for the purpose of clearing it for cultivation only, but he may not use the earth for making bricks or tiles, or exploit the mineral wealth without the express consent of the State. Fruit trees and vines may be planted only with the permission of the State, but once planted and having remained three years they become "mulk" property of the lessee and are subject only to the tithe (12.5 per cent of the produce in kind, but now abolished); however, trees springing up naturally on the soil follow the condition of the land and remain "miri."

*Erection of buildings.*—The erection of buildings on "miri" property also requires the consent of the State, which may raze them if such consent has not been obtained. If the consent is obtained, these buildings become "mulk" property of the builder and, in case of transfer of the land, are the subject of a separate sale. If the buildings, trees, etc., are sold, the State requires the transfer to the purchaser of the "miri" rights in the soil.

### PROPERTY IN MORTMAIN

"Mevkufeh" property is that held in mortmain by the Ministry of Pious Foundations for administration for a given charitable, public, or other purpose, usually the maintenance of a mosque, school, orphanage, etc.

*Classification.*—"Mevkufeh" property is divided into two general classes: (*a*) "Mulk" property dedicated to a given purpose by the individual owner; (*b*) "miri" property dedicated to a given purpose by the State or by an individual lessee with the consent of the State; the terms of such State grants vary, sometimes including only the revenues derived from the property, such as taxes, tithes, etc., sometimes including only the fixed sum which the lessee of "miri" property is required to pay on obtaining the grant for use of such property, sometimes including both the revenues and the fixed sum.

*Limitations.*—"Mevkufeh" property, regardless of its original status, can not be alienated. It can only be administered for the purpose and in accordance with the conditions set forth in the original dedication. "Mevkufeh" property of "mulk" origin is relatively unimportant. The great bulk of "mevkufeh" property is of "miri" origin, and what has already been said of "miri" property applies to it with the exception that the revenues, or a part of them, go to the Pious Foundations and not to the State.

### PUBLIC RESERVATIONS AND DEAD LANDS

"Metrukeh" property includes that which is reserved for general public use, such as roads; or for use by the population of a given region, such as pasture land. Individual property in such lands can not be acquired.

"Mevat," or "dead" property, comprises uninhabited and uncultivated lands, like mountain tops, cliff sides, etc., lying at a distance from the nearest habitations to which the sound of the human voice will not carry.

Digitized by Google

## LIMITATIONS ON TITLE AND MORTGAGE

By a law of June 16, 1867, foreigners were accorded the right of holding property in Turkey on the same terms as natives, on condition that the foreign State of which a given foreigner is a national shall have ratified a protocol recognizing the full jurisdiction of Turkish courts in matters of real property. Such assent was given by the United States in 1873.

Of the classes of property described above, only "mulk" and "miri" property can be mortgaged. In the case of "mulk" property there is a special register with stubs for recording mortgages. In the presence of the two parties or their representatives, entry of the details of the mortgage is made on both the stub and the detachable sheet; the latter, after being sealed by the Register of Deeds, is detached and delivered to the mortgagee along with the title deed of the property.

As regards "miri" property, the mortgagor and mortgagee draw up a joint declaration describing the property involved, the amount loaned, the legal rate of interest, and the conditions of the mortgage. This is authenticated by the administrative council of the political subdivision in which the property lies, and is then given to the mortgagee with the leasehold deed. Provision has been made for sale in the event of nonpayment, but sale in the case of "miri" property means only the sale of the enjoyment of the property, for the title vests in the State. Conservative money lenders, therefore, decline to concern themselves with "miri" mortgages.

## LAND REFORMS

### REVISIONS NEEDED

Turkey is in need of a radical revision of the land and mortgage laws, notably of a unified system of tenure which will vest title in the individual exclusively and permit him to raise money on the credit of his land. The great proportion of all inhabited and cultivated land in Turkey is either "miri" or "mevkufeh" property, title to which is now vested in the State. "Mevkufeh" property can not be mortgaged, and "miri" property can be mortgaged only under conditions incompatible with modern credit.

Rights of inheritance should be further extended, in modification of existing legislation and traditions which automatically add more of the country's real property to the State and withdraw lands and lots to a corresponding extent from individual ownership and enterprise.

### REVISIONS UNDERTAKEN

*Landed-property code of 1913.*—A "decree law" of March 30, 1913, endeavored to eliminate some of the more obvious defects of the present system of tenure through a "landed-property code," which provided for (*a*) corporate holding of real estate in the name of the corporation, (*b*) mortgaging of property as security for debts, (*c*) suppression of "geudik" (guild) property, (*d*) extension of the right of inheritance, and (*e*) a general survey and evaluation of all landed property in the country, together with a readjustment of the prevailing tax system. Although the Great War interfered with the

Digitized by Google

application of this code, it is believed that eventually its provisions will be enforced and improved.

Notwithstanding the fact that its terms exclude foreign corporations from holding real estate and limit property subject to mortgage to cities and towns, it is fair to assume that the law when applied will probably stimulate individual enterprise by the provisions for final surveys of property, for its separation from communal or guild property, and for its conversion from leaseholds to freeholds. All these will mean a marked rise in land values, and the extension of the right of inheritance will bring additional incentives to enterprise and permanent improvements. Wealth hitherto tied up because of the practical prohibition of real-estate mortgaging will be released; vast areas now belonging to pious foundations or having their titles vested in the Government, and thus rendered useless as a basis of credit, will become mobilized and drawn into active service.

*Abolition of Pious Foundations Ministry.*—In the spring of 1924 the Grand National Assembly abolished the Ministry of Pious Foundations and distributed its holdings among several departments of the Government, its lands being placed under the direction of the Ministry of Finance. It is generally understood that the abolition of this ministry is but the first step toward a unification and modernization of tenure. No practical steps have been taken in this direction, however, down to the present time (June, 1925) beyond the appropriation of £T1,000,000 for a general survey and revaluation of landed property. [Action at Constantinople on this survey began in June with the appointment of a commission to carry out the provisions of the law. Reorganization of the registration service there is expected to require 2 years, and throughout the country, 15 years. Meanwhile, a school has been opened in Constantinople to prepare surveyors and registrars for the service.—*Editor.*]

## LAND CULTIVATION AND STOCK RAISING

The chief industry of Turkey is agriculture, yet only 18 per cent of the total area is under cultivation, and large-scale production and modern farming methods and organizations are almost unknown. Agricultural production is therefore distinguished, not by its volume but by its variety; few sections of the world of the area of Turkey yield so great a variety of agricultural products.

### NATURAL CONDITIONS

The country may be divided into three principal zones of cultivation:

1. The region, particularly rainy, situated in the north and bordering the Black Sea, and adapted to the growing of fruit trees, nut-bearing trees, tobacco, flocks and herds, butter, eggs, and timber.
2. The region along the littoral of the Aegean and Mediterranean Seas, characterized by hot and dry summers, and favorable to the growing of fruits, particularly grapes, figs, oranges, lemons, and olives, as well as sesame, cotton, and timber.
3. The central region, only slightly rainy, and producing cereals, opium, flocks and herds, wool, mohair, butter and cheese.

Digitized by Google

The soil in Turkey is generally very fertile and yields abundant crops with little effort, especially in the well-watered districts. It is an argillaceous and calcareous soil which conserves the winter rain and melting snow and accelerates plant growth in the early heat. Even to-day the soil gives but faint indication of exhaustion, although neglect of its possibilities has probably prevailed since humanity first established itself in this part of the world.

## HUMAN FACTORS AND HINDRANCES

Although agricultural machinery is coming into wider use, a great part of the plowing is still done with an ox-drawn metal-tipped stick. Artificial fertilizers are not used at all, and even natural manure is not properly employed. A crude sickle still serves extensively for harvesting, and the grain is generally separated on a threshing floor of beaten earth by means of the ancient drag incrusted with flint. Passable roads and highways, railways, and irrigation are in their infancy. Agricultural instruction is beginning, however, and taxation is less grinding since the removal of the tithe. The financial institutions of the country afford only a minimum of encouragement, and unhygienic conditions and defective public security render rural life unattractive in the extreme.

### THE PEASANT

Moreover, more than a decade of warfare has considerably decreased the number of cultivators of the land and invalided many of the women. The peasant in Turkey, as elsewhere, contributed to the war more than any other class in valor, suffering, and taxes. Most of the revenues were and are derived from him, and yet he has to do his own policing. He must defend himself against highway robbers, the concessionary tax collector, the usurer, and the landowner, and finally go with his son and his livestock to defend the country against invasion.

Fortunately, the peasant's requirements are few. He is usually sober and a good worker, but very indifferent to knowledge. He is slow to believe that machinery does work better and quicker than human hands, and he is reluctant to depart from the method inherited from his forefathers. Bitter experience has taught him the uselessness of producing more than is absolutely necessary for his living and for the payment of taxes, and his tendency is to remain always the same or even to retrograde. Literacy, which would improve his lot immensely, was kept by the rule of the Sultans above his reach. Few are the peasants who know how to read and write. Fewer even are those who understand their own language properly. The agricultural problem confronting the young Turkish Republic is, therefore, a difficult one.

### THE COUNTRY SQUIRE AND USURY

Two prime enemies of agriculture are the usurer and the country squire, usually combined in the same person. As stated previously, large-scale agriculture is unknown in Turkey, and each peasant cultivates his own small lot varying between 2½ and 25 acres. The

Digitized by Google

peasant frequently does not produce enough grain to support himself throughout the year and, in case of drought or crop failure for other cause, needs material assistance in order to avoid starvation. Almost invariably at the beginning of the sowing season he lacks the necessary seeds and implements for the cultivation of the land. In every case he has recourse to the squire of the neighborhood, to whom he mortgages his land or his prospective crop at usurious rates of interest, generally around 35 or 40 per cent.

The result is that, being rarely able to pay, he loses all semblance of an independent status and becomes a laborer on the land of his wealthy neighbor. The tendency is therefore toward the disappearance of a "bold peasantry." In fact an independent peasantry has almost entirely disappeared and has given place to a feudal system of cultivation on shares, which is particularly entrenched in the Kurdistan region. Under this system the squire furnishes the seed for sowing and the peasant does the work of clearing and preparing the land, sowing the seed, and harvesting the crop. At harvest time the amount of seed furnished by the squire is returned to him, after which 12½ per cent of the crop is set aside for the tithes, and finally the remainder is divided between the squire and the peasant. Landowners find this system satisfactory, since they risk nothing but the seed, while the peasant, constantly beset by poverty, has no choice. But the country in the meantime suffers heavily.

### GOVERNMENT TITHES AND TAXATION

The tithe institution has been another hindrance to the development of agriculture in Turkey. Under this ancient system the farmer has been obliged to turn over in kind 12½ per cent (originally 10 per cent) of his produce to the Government. Needless to say a flat tax of 12½ per cent on his gross income weighs heavily on the peasant, already very poor.

But the mode of collection of the tithe has been an additional misfortune for the farmer. The Government has farmed out, or sold in advance, the revenue of the tithes to private individuals for a lump sum of money. These individuals have collected and kept the tithes themselves and were assisted by the police and the courts in recovering their money. All kinds of abuses cropped up, and the peasant has usually been robbed of part of his hard-earned output. The recent legislation, restricting the application of the tithe system and abolishing the concession system of collection, is given in full on a later page.

In addition to the tithe, the peasants are also subjected to land tax, to road taxes, both local and general, to school taxes, and finally to military requisitions.

## WAR AND ITS AFTERMATH

### EFFECT OF WORLD WAR ON AGRICULTURE

In spite of the unpromising state of affairs, it must be conceded that the World War had a profound effect on the improvement of agriculture in Turkey. It is true that the farmers were called to arms and the fields were emptied, the Government in the emergency

Digitized by Google

assuming exclusive control of agriculture in order to provide for the needs of the army and the people. The crops were requisitioned several times, and the tithes were doubled and trebled, being raised first 25 per cent and then 37½ per cent. Moreover, the municipalities took charge of the sale of grain and fixed prices. But despite all these difficulties the farmer made a profit from the sale of what remained to him of his product.

Those who remained at home, principally the women, worked with all their might. Labor battalions helped in the fields, and agricultural machines, which the Government had begun to purchase from Germany soon after the Balkan War of 1913, were imported. Turkey paid Germany £T400,000 ($1,760,000) for agricultural machinery and implements to be distributed among the peasants against cash or installment payments, without any profit to the Turkish Government. Germany shipped a part of this order, and the Government did not fail to distribute the machinery among the principal agricultural centers such as Adrianople, Brusa, Angora, and Adana, where there were agricultural schools.

For two years (1913–1915) every important agricultural section of Turkey had its agent, who furnished the cultivators the best available information regarding agriculture and the results of scientific investigations, and also taught agricultural subjects in the schools. These agents were graduates of the Constantinople Agricultural College and were paid employees of the Government. The ablest were sent to Germany and Hungary for extensive study, and returned to become instructors, inspectors, and specialists. In addition, the Agricultural Bank was reorganized and developed.

But toward the darkest period of the war both the theoretical and the practical development of agriculture in the Empire was given up, and this field in general began again to be neglected. The agricultural and horticultural experiment stations, established in the principal farming districts, were abandoned, and practically all of them were pillaged in the course of subsequent military operations. Germany has yet to send the balance of the machinery and implements ordered, payment for which was made in full.

### POSTARMISTICE CONDITIONS

The aftermath of a destructive war, the interruption of communications between Constantinople and Anatolia in consequence of the nationalist movement, the occupation of Thrace and western Asia Minor by Greek forces, the state of disorganization in which the country found itself, the limited financial resources left at the disposal of the Government, all were important factors in preventing the continuation of agricultural improvement work. The farmer was left without protection or direction.

Those who returned from the war tried to take up the work on the farms, but found conditions entirely changed. Prices of grain decreased owing to inaccessibility of markets. The meteorological institute, which had been created in Constantinople and placed under the direction of German specialists, was closed; the agricultural machinery imported from Germany was left to rust; and even the branches of the Agricultural Bank suspended advance and credits against securities.

Digitized by Google

## PRESENT-DAY REMEDIAL EFFORTS

### GOVERNMENT ENCOURAGEMENT

With the accession to power of the Government of the Grand National Assembly, the lot of the peasant and the soil have again come up for consideration, and the steps thus far taken seem very encouraging. The importation of agricultural machinery (including parts and accessories and gasoline for motor operation) free of duty has been provided by law, and a heavy duty on imported cereals and other agricultural products has been imposed. The duty on motor trucks for agricultural use is paid by the Agricultural Bank. Early in 1925 a law was promulgated modifying the decree law of 1913 on encouragement of agriculture; it allows free importation of raw materials, etc., necessary for the advancement of agriculture and local industries, for a period of three years beginning April 21, 1924 (1340).

The activities of the Agricultural Bank have been resumed and enlarged, and a system of rural credits in favor of peasants has been created. A special commission has been instituted at Angora to distribute Government-bought selected seed grain and agricultural machinery and implements. Repair workshops have been established at Angora, Konia, Erzerum, Sivas, Samsun, Adalia, and Trebizond. Agricultural lectures and distribution of literature have been commenced among villagers.

In the absence of railways many roads have been repaired and made passable for motor trucks, which have recently been successfully introduced in certain farming districts. The tractor is also doing efficient work in spots; at present there are about 750 tractors in Turkey, of which 600 are American made. American and European beehives, wagons, reapers, flails, scythes, incubators, churns, shovels, picks, rakes, copper sulphate, and sulphur have been furnished to cultivators against security, and the Anatolian Railway Co. has resumed efforts to develop agriculture throughout the territories crossed by its lines.

Much remains to be done, however, notably in the matter of transportation, for the freight rates per ton of wheat quoted June 19, 1924, were $5.06 from New York to Constantinople and £T17 ($8.84) from Angora (270 miles away) to Constantinople.

### MARKETING MEDIUM OPENED

On February 21, 1925, there was formally opened in Constantinople a "Commercial and Foodstuffs Exchange" (bourse), which had previously been approved by the Council of Ministers on October 19, 1924. This exchange, known as a cereal bourse, will, for the present, have exclusive jurisdiction over all purchases and sales of wheat, flour, bran, barley, corn, rye, millet, linseed, flaxseed, sesame, broad beans, lentils, beans, chickpeas, and peas, thus exercising a check on speculation in these products. Later on its activities are to be extended to other products of the soil and to animal products.

59573—26——7

Digitized by Google

### CREATION OF VILAYET COMMISSIONS

Indicative of the attitude of the Government is a law passed by the 1923–24 session of the Assembly, which provides for a commission in each Vilayet, presided over by one of the three highest civil functionaries and including as a member the chief of the recruiting bureau of each district. The duties of this commission are to record and report the number of livestock, the area of cultivable land, the quantity and kind of available agricultural machinery, the amount of seed necessary, and general conditions affecting the peasant. Under the law—

1. Each peasant possessing a minimum of two draft animals must cultivate at least 28 acres of land.
2. Officially organized and concessionary companies are obliged to cultivate, or to have cultivated at their own expense, 62 acres for the first £T5,000 of capital and 6 acres for each additional £T1,000.
3. All farmers, men and women, are obliged to devote one day per week to working the land belonging to orphans, war widows, and cripples.
4. Municipal councils are obliged to assist farmers in securing agricultural machinery and implements through the different branches of the Agricultural Bank.
5. There are exempt from military service—

(*a*) The farmer and his two helpers who cultivate a minimum of 124 acres. The farmer who cultivates over 124 acres has a right to demand exemption for an extra helper for each 62 additional acres, provided he be enlisted in a noncombatant branch of the army.

(*b*) For the farmer who owns and utilizes tractors and motor trucks, two mechanics and an extra man for each 62 acres.

(*c*) Managers, bookkeepers, and technical employees of companies engaged in agricultural work.

(*d*) The owner of not less than 200 sheep and goats, 50 head of cattle or horses, and their shepherds or stockdrovers, the latter to belong to noncombatant branches of the army.

(*e*) The owner of 308 acres of olive groves, or 13 acres of vineyards or gardens.

(*f*) Two blacksmiths and two carpenters for each county, who will repair agricultural implements at a price fixed by the municipality of the district.

(*g*) The mechanics and drivers of reaping and threshing machines, for a period of six months during the harvest.

### TITHE RESTRICTION AND TAX REFORM

A radical and most far-reaching measure was adopted by the Council of Ministers and submitted to the Grand National Assembly in the fall of 1924, passed by that body on February 17, 1925, and published the following day in the Angora newspaper "Hakimiet Millieh." As it provides for the restriction of the tithe system to farm produce after it is brought to markets other than the one local to place of growing, and does away with the tax-farming custom, it has been hailed with undisguised relief and joy by the agricultural population. No reform more promising has ever been undertaken in Turkey, since it is coupled with a general scheme of amendment of existing land tenure, inheritance, and mortgage laws. [No information concerning this latter scheme was available as late as June, 1925.—*Editor.*] A translation of the law is given below.

ARTICLE 1. The tithe system is abolished. Beginning with the financial year 1341 (March 1, 1925) taxes will be collected on lands and products of the soil in accordance with the present law.

ART. 2. A tax in the proportion of 10 per cent of the local standard value is to be collected on products of the soil brought for further shipment, from a

Digitized by Google

distance of 60 kilometers, to piers and railway stations; and [of 10 per cent] of the value of the place of production on products of the soil, including flour and cracked wheat, brought for further shipment from a greater distance to piers, railway stations, or customhouses, which [products] were heretofore subject to tithes. However, fresh fruits and vegetables are subject to tax in accordance with the current prices of the place of production, regardless of the distance from which they may come.

No tax shall be collected on fresh fruits and vegetables transported by whatever means from the townships, towns, and villages of the Provinces of Stambul, Pera, and Skutari to [other parts of] the said Provinces.

ART. 3. The following products of the soil are subject to an 8 per cent tax on the current prices of the places indicated:

| | |
|---|---|
| Raisins, at exchange (market). | Cotton, at factory and after baling. |
| Figs, at exchange. | Valonia, at production point. |
| Hazelnuts, at shipping point. | Olive oil, at factory and refinery. |
| Opium, at weighing point. | Rice, at piers and stations. |
| Silk, at weighing point. | Canary seed, at piers and stations. |
| Tobacco, at selling point. | Sesame, at piers and stations. |

ART. 4. The procuring of a transportation permit at the stations or piers of loading at the time of sending is obligatory for products of the soil to be transported by railway or water craft; and the transportation of products of the soil without a transportation permit is forbidden.

ART. 5. The land tax, now collected at the rate of 6 per thousand (except in certain specified cases), on the value of the land subject to tithes, is multiplied by eight. [The 1915 valuation serves as basis, and the multiplication is purely that necessitated by depreciated native currency.] Three-eighths of this tax, which is the share of philanthropic works, are collected along with the share of the Treasury and one-fourth [of the three-eighths] is remitted to the Agricultural Bank and three-fourths to the [provincial] special administrations.

ART. 6. The registered value of lands for the year 1915 is the basis for the collection of the tax. Values which have increased since the said date as a result of transfer, partition, or special modifications are not to be taken into account. However, the cases specified below are exceptions:

(*a*) If the present registration value of the land is found to be more than eight times the registered value for the year 1915, the tax is fixed at 6 per thousand on the present value.

(*b*) The tax on lands of which there is no former registered value is also to be collected at the rate of 6 per thousand on the present value.

In these two cases also, three-eighths of the tax to be collected belongs to the share of philanthropic works and is remitted in accordance with article 5.

(*c*) The tax for former years on unregistered lands is subject to the provisions of law for those years. If the land tax for the year 1915 exceeds eight times 6 per thousand of the present value, the excess is deducted.

ART. 7. In principle, the land tax on lands which, having been registered by the registry office as cultivated, are now idle through being under briars or water, shall not be increased. Taxes representing tithes formerly due [on such lands] shall not be collected.

ART. 8. The tax on the excess of courtyards and gardens, set forth in article 3 of the real property law, not being subject to additions, is collected according to the basic valuation.

ART. 9. In those cases where the formalities prescribed by the provisions of this law are not accomplished, the tax required to be paid, multiplied by three as a penalty, is collected in accordance with the encashment law.

ART. 10. The tithe decree and all provisions of law in conflict with this law are repealed.

ART 11. This law is effective beginning March 1, 1925 (1341).

ART. 12. The Minister of Finance is charged with the execution of the provisions of this law.

PROVISIONAL ARTICLE. Tax shall not be again collected on existing products of the soil on which tithe has been paid, pending the putting into execution of this law.

In order to meet the deficit created by the abolition of the tithe, the following law, increasing the stamp tax and the fiscal price of salt and imposing a consumption tax on cotton and woolen goods, was

Digitized by Google

published in the Angora newspaper "Hakimiet Millieh," of March 3, 1925:

ARTICLE 1. The fixed stamp tax, which was tripled by the first article of law No. 29 of September 29, 1922, is quintupled.

ART. 2. The fiscal price of salt, which was increased to 4 piasters per kilogram by the first article of Law No. 468 of April 8, 1924, is increased, by the addition of 2 piasters, to 6 piasters.

ART. 3. A consumption tax in the proportion of one times the custom duty is imposed on each kilogram of cotton cloth mentioned in the 270th article of the customs tariff and of woolen cloth mentioned in the 323d article.

ART. 4. The provisions of the laws, No. 29 dated September 29, 1922, and No. 468 dated April 8, 1924, [together with the] additions provided for in articles 1 and 2, shall be textually applied.

ART. 5. The consumption tax on cloth mentioned in article 3 shall be collected at the customhouse of the place of entry in the case of goods coming from abroad, and at the factories and workshops in the case of goods made in the interior.

ART. 6. The goods mentioned in article 3, which are in the customs on the day of the entry into force of this law and which have not yet paid the customs duty, are subject to the consumption tax.

ART. 7. The provisions of the collection law shall be applied to those who refuse to pay the consumption tax on the goods mentioned in article 3.

ART. 8. This law is effective beginning March 1, 1925 (1341).

ART. 9. The Minister of Finance is charged with the execution of this law.

### FURTHER URGENT NEEDS

Although the Government is attempting to do its share in promoting agricultural industry, the country has not as yet fully awakened to the necessity for changing antiquated methods to modern ones. A few intelligent farmers are availing themselves of the opportunities offered by the Government and the Agricultural Bank, but the large majority of the peasants are ignorant; untiring efforts are essential to effect even a slight change in their indifferent attitude toward scientific methods. At the same time, the reforms undertaken by the Government constitute only a fraction of what is required, if full advantage is to be taken of the gifts with which nature has so freely endowed the country.

The improvements still urgently needed may be summarized as: (*a*) Establishment of rapid means of transport and communication; (*b*) extension of agricultural instruction; (*c*) improvement of the soil through a proper system of irrigation and fertilization; (*d*) more extensive introduction of agricultural machinery and implements; (*e*) creation of factories for the purpose of utilizing on the spot the raw materials produced on the soil; (*f*) reclamation of marshy and waste lands and the introduction of hygienic conditions favorable to a rapid growth in population; (*g*) strengthening of the police in order to assure public safety; (*h*) creation of agricultural societies and clubs in order to bring the country's agricultural elements together; and (*i*) introduction and multiplication of model farms.

Nevertheless, taken all in all, the agricultural situation has so visibly improved by the summer of 1925, under the awakened interest and untiring labors of the peasant, as to be a subject of congratulation by the president of the Constantinople Chamber of Commerce, who attributed the change to three causes—increased use of agricultural machinery, care exercised by the Ministry of Agriculture in seed selection, and abolition of the tithe.

Digitized by Google

## PLANTATION PRODUCE

The following individual surveys, based on statistics compiled by the Turkish Government for the year 1913 (no reliable official statistics have been issued since that year), will show the importance and possibilities of the various Turkish agricultural products:

### CEREALS

*Wheat.*—Of all the farm produce cultivated in Turkey, wheat occupies the first place. In a normal year (1913), the territory of present-day Turkey produced some 152,000,000 bushels of wheat on a cultivated area of 16,731,363 acres, or about 9 per cent of the total area of the country. The principal areas of production in order of importance were the regions of Angora, Konia, Sivas, Diarbekir, Smyrna, and Adana. Although not technically graded, the wheat raised may be classified as "hard"; it produces first-class white flour.

*Barley.*—Second in importance among Turkish cereals is barley. Some 7,309,350 acres, or about 4 per cent of the total area of the country, were devoted in 1913 to barley-raising, and the yield amounted to 93,432,348 bushels. The chief centers of production were Angora, Smyrna, Sivas, Konia, Diarbekir, and Kastamuni. In pre-war times barley was exported in large quantities through the port of Smyrna to England for beer-making and the remainder was used as feed for domestic animals and as food for the poorer classes of the population.

*Oats.*—Oats are produced chiefly in the regions of Brusa, Konia, and Adana. Main centers of production for kapluja (wild oats) are Kastamuni, Kaisaria, and Sivas. In 1913 some 1,435,172 acres were given over to these two crops, and the output was 6,713,885 bushels of kapluja and 12,700,303 bushels of oats. The entire output was consumed locally as feed for domestic animals.

*Rye.*—The cultivation of rye in Turkey has gradually been giving place to that of wheat, so that the only remaining areas of rye production of any importance are Nigdeh, Konia, Kaisaria, and Van. The area under cultivation in 1913 was 1,024,355 acres, and the output 11,971,241 bushels.

*Corn.*—Climatic conditions in Anatolia favor corn-growing in spite of deficient rainfall. But the uses of corn are not numerous in Turkey, nor is the production per acre high. In 1913, 21,455,364 bushels were raised on an area of 2,045,818 acres. The greater part of this was used for domestic animals, and the surplus exported.

*Rice.*—Rice growing is in its infancy in Asia Minor, although the quality produced is said to be superior to the American Blue Rose, and is sold locally at slightly higher prices. In 1913 Turkey produced some 1,892,151 bushels on an acreage of about 160,300.

*Millet.*—Millet grows principally in Diarbekir, Adana, Aidin, and Bolu. The area devoted to its culture amounted in 1913 to 502,956 acres, and the yield to 4,715,310 bushels.

*Canary seed.*—Canary seed is raised in Thrace. The area under cultivation in 1913 approximated 11,040 acres, and the crop totaled 362,527 bushels. In 1923 the yield was 2,000 tons; in 1924 it was estimated at 5,000 tons. The United States is a large purchaser of

Digitized by Google

Turkish canary seed, in 1923 taking 1,412,649 pounds valued at $47,169, and in 1924 taking 1,826,380 pounds valued at $78,434.

Other cereals, such as spelt, Indian wheat, alfalfa seed, etc., in 1913 claimed an estimated area of 115,000 acres and yielded about 1,100,000 bushels.

The following table recapitulates the acreage and yield of cereals in 1913.

| Product | Dunums | Kilehs |
|---|---|---|
| Wheat | 27,117,285 | 128,317,926 |
| Wild oats | 1,009,337 | 5,689,733 |
| Barley | 11,846,431 | 79,179,956 |
| Oats | 1,316,711 | 10,762,969 |
| Corn | 3,315,751 | 18,182,512 |
| Rice | 259,783 | 1,603,518 |
| Millet | 815,164 | 3,996,025 |
| Rye | 1,660,219 | 10,145,120 |
| Canary seed | 17,894 | 307,226 |
| Other cereals | 184,883 | 912,632 |
| Total | 47,543,458 | 259,097,617 |

NOTE.—The dunum equals 0.227 acre; the kileh equals 56.528 pounds.

## VEGETABLES

The only Turkish vegetable meriting special mention is the beet, and this because of its relation to the sugar industry, still in its infancy. The Turkish beet output in 1913 amounted to 61,400,000 pounds, from a cultivated area of 26,664 acres. The main producing districts were Eski-Shehir, Kutahia, Angora, Sivas, and Marash.

In 1923 Turkey paid £T10,964,000 ($5,657,100) for foreign sugar, whereas certain regions in Anatolia have been pronounced admirably adapted to the raising of sugar beets. The Government, being anxious to develop this industry as a step toward remedying the present highly unfavorable balance of trade, has aided in the founding of a company, "La Société Anonyme Turque d'Uchak pour le Développement Agricole," for the establishment of the beet-sugar industry in Turkey. The company, with headquarters in Ushak on the prolongation of the Smyrna-Kasaba Railway, is capitalized at £T300,000 ($156,000), of which amount the Turkish Government has subscribed and paid in 50 per cent. Sugar-beet seed was ordered from France and Austria for planting in the spring of 1925.

The Grand National Assembly, in April of the same year, passed a law to encourage the beet-sugar industry in Turkey, under which concessions for sugar factories, valid for 20 years, will be granted, including the exclusive privilege of manufacturing within the area covered by the surrounding five provinces. These factories may import, free of duty, machinery and equipment. Their output will be exempt from taxation for 8 years, and their laborers exempt from income tax for 11 years. Any coal or lignite mines which the factory may exploit for its own use also will be free from taxation for 25 years. Finally, the concern will be given 5 hectares (about 13½ acres) of land free; in case State lands are not available, private land may be expropriated. The output will be car-

Digitized by Google

ried by any State-owned means of transportation at one-third of regular rates.

In the late spring the Constantinople and Thrace Sugar Factories (Inc.) was awarded a 25-year concession for opening sugar refineries in European Turkey, work to begin in six months.

Sugar cane as a source for the sugar industry is negligible, but some is grown.

The acreage and yield of vegetables in 1913 appear in the table below.

| Product | Dunums | Okes |
|---|---|---|
| Broad beans | 167,537 | 28,024,558 |
| Peas | 25,284 | 2,183,130 |
| Chickpeas | 477,477 | 30,744,043 |
| Beans | 437,488 | 39,933,840 |
| Lentils | 262,427 | 16,330,255 |
| Kidney beans | 30,237 | 1,419,476 |
| Common vetch | 861,527 | 3,347,519 |
| Vetch | 194,110 | 1,345,597 |
| Potatoes | 168,676 | 50,977,016 |
| Beets | 43,216 | 21,683,305 |
| Carrots | 209,726 | 8,246,524 |
| Onions | 294,735 | 80,575,332 |
| Garlic | 54,340 | 5,255,705 |
| Total | 3,226,780 | 290,066,300 |

NOTE.—The dunum equals 0.227 acre; the oke equals 1.28 kilos, or 2.8264 pounds.

## INDUSTRIAL AND MEDICINAL PLANTS

### TOBACCO

Originating in America, tobacco was introduced into Turkey following the conclusion of a treaty of commerce between that country and the Netherlands in 1612. At first the consumption of tobacco in any form was punishable under penalty of death, but by 1687 the tobacco trade had developed to such an extent that it became an important economic factor in the country.

*Commercial importance.*—At the present time the production of cigarette tobacco in Turkey plays a leading rôle and furnishes a very important item in the country's foreign commerce. The value of tobacco exports amounts to 20 or 21 per cent of the total value of all Turkish exports. Turkish tobacco, suited only to cigarette manufacture, is produced chiefly in the districts of Smyrna, Samsun, Aidin, Brusa, and Izmid. In 1913 a total area of about 366,400 acres was devoted to tobacco cultivation, and the output was estimated at 91,741,000 pounds of all grades. The 1923 crop approximated 50,000,000 pounds; that of 1924 reached 119,700,000 pounds, the largest in the history of the country.

In order to secure the exact types of Turkish tobacco desired for blended cigarettes, foreign tobacco concerns, notably American and British, some years ago decided to maintain their own resident buyers in the Turkish tobacco districts. These advance money to planters and supervise the tobacco culture and manipulation through their various stages. American concerns buy about 70 per cent and 68 per cent, respectively, of the tobacco production of the Samsun and Smyrna districts; Egypt and Europe absorb the greater portion of the remainder.

Digitized by Google

Thanks to the excellent natural conditions of the Turkish soil and the expert knowledge of the Turkish cultivators, the growing of tobacco is capable of extraordinary development under certain conditions. Since the arrival in Anatolia of immigrants from Kavala, Seres, and Macedonia, a new era of tobacco culture is anticipated, considering the fact that these people are now settling down in the Samsun-Bafra region, where the tobacco is considered to be the best in Turkey.

*Characteristics of Turkish tobacco.*—In its adopted country tobacco lost many of its American characteristics and gradually took on new qualities so different that Turkish tobacco is now a distinct type. Turkish leaf is far smaller than American, with an average size of about 3 by 4 inches, while many leaves are but 1 inch in width and length. The Turkish leaf is extremely thin, a thousand or more to the pound. Even in shape it is different, being either egg-shaped or lance-shaped, whereas the larger American leaf is nearer the spearhead or triangle in shape.

But the most marked difference is in taste—the pungent, spicy aroma, distinctly different from American type. Although many prefer straight Virginia, and although most smokers to-day find straight Turkish cigarettes too rich and heavy, the aroma of Turkish tobacco is highly valued, as proved by the overwhelming popularity of "Turkish blend" cigarettes, in which the aroma of Turkish is blended with the sweetness and "body" of American tobacco.

*Growing, harvesting, curing, and marketing.*—The best Turkish tobaccos grow on the slopes of the hills, near the mountains, in gray orchard land or red-clay soil. Seeds are planted in the early spring, and transplanting of seedlings is usually done in May. Harvesting goes on from July to September, depending on locality and atmospheric conditions. At every stage the most anxious care is required, because of the extreme delicacy of the plants.

Contrary to the prevailing custom in America, Turkish tobacco is picked leaf by leaf as it ripens. This work is done at dawn, after the dew has moistened the plants, so that the stems break sharply without injury to the leaf. Not more than four leaves are taken from a plant at one picking. After grading as to quality and size, each leaf is threaded on strings.

Following about 20 to 30 days of drying, the farmer takes the strings of tobacco down, packs them in piles, and covers them with blankets, to "cure" them; this usually is done in November. The leaves, now yellow in color, are then packed into bales by hand and taken to market or to the owner's storage depots by pack mules, camels, or oxcarts. It is assorted, baled, and wrapped, and left in the warehouse to age. Two or three years later it is released for consumption.

*The "Régie" monopoly and its termination.*—In Turkey the cultivation of tobacco has been controlled in the past by the "Régie Co-Intéressée des Tabacs de l'Empire Ottoman," a monopoly granted to foreign capital by the Turkish Government in 1884 for a period of 30 years. This period was extended in April, 1914. Under the Régie, each cultivator was required, prior to planting, to appear before the officials designated and file application for a permit for the acreage he contemplated planting. He was required to exhibit title deeds to the property he intended planting

Digitized by Google

or a lease from the owners. After planting and before cutting, Régie experts named by the State and the Public Debt Commission estimated the probable amount of the crop. Upon this the producer paid a tax of 12½ per cent. Sales also had to be authorized by the Régie.

On September 17, 1924, the Turkish Government informed the Société de la Régie Co-Intéressée des Tabacs de l'Empire Ottoman that the concession would terminate on March 1, 1925. This action was taken under authority of article 8 of the contract between the Government and the company, dated June 13, 1923. The Turkish Government has agreed to reimburse the Régie in the sum of 40,000,000 French francs for the cancellation of its concession and the taking over of its property. The Régie passed into the hands of the Government March 1, 1925, and Seifi Bey, Undersecretary of Finance, was appointed temporarily as director-general to administer and operate the Government monopoly of tobacco.

On March 25 following the National Assembly pronounced itself in favor of the "banderolle" (internal revenue stamp) system, rather than the State monopoly system of dealing with the industry, thus making the manufacture and sale of tobacco and cigarette paper unrestricted to private enterprise, subject only to payment of State taxes. It is not clear just when this action of the Assembly becomes effective.

### COTTON

The cotton industry in Turkey reached its greatest development at the time of the Civil War in the United States, when an American concern opened a branch at Smyrna for the purpose of encouraging the peasants to devote larger areas to cotton growing and of instructing them in production methods. Superior stock was introduced at that time, and the enterprise resulted in a tenfold increase in area sown to cotton. As the price of cotton fell the industry declined, and the peasants returned to grain growing.

*Market brands and pre-war production.*—Turkish cotton is suitable for mixture with better grades in manufacture. It is marketed locally under four nomenclatures, namely, "iane-pamugu," "kapumali," "balia-mali," and "kozaji." These vary in length of fiber from 19 to 27 millimeters (0.748 inch to 1.063 inches). In 1913 a total of 993,549 acres in Thrace and Anatolia were devoted to cotton growing, producing nearly 200,000 bales. The principal growing regions were Adana, Smyrna, Mamuret-ul-Aziz, Kutahia, Konia, and Marash.

*Recent expansion.*—An American cotton expert has been employed by the present Turkish Government and American seed imported, with the idea of considerably expanding the industry. The most active and progressive district at present is Adana; the other two cultivating areas are the hinterland of Smyrna and the valley of the Sakaria (the latter tributary to the Black Sea, east of the Marmora).

According to information from reliable sources, the last cotton crop in the Adana district prior to the war amounted to 135,000 bales (the average weight per bale is 250 kilos, or about 550 pounds). In 1921 there was an estimated crop of only 15,000 bales. The 1923 crop amounted to approximately 70,000 bales and the 1924 crop to



Digitized by Google

about 130,000 bales. The acreage plowed for the 1925 crop shows an increase of about 30 per cent over the last plowing. The 1923 Smyrna cotton crop was estimated at 30,000 bales, and the 1924 crop at about 50,000 bales.

This change is illustrated by the sales of agricultural machinery. More than 100 American tractors were sold in this cotton belt during 1924, as against 25 during 1923 and 3 during 1922. During 1924 about 30 large German motor plows were sold, as against no sales since prior to the war. Although farm animals are universally used in crop work, tractors are now employed on about one-tenth of the total Adana acreage. The cost of producing cotton in this region under present conditions has been estimated at about 10 cents per pound of lint.

In the channels to market, cotton production is financed by natives; marketing, by foreigners. The farmer usually sells all or part of his crop for future delivery to get cash for harvesting and transportation. These purchases are generally made by local brokers, who resell at the gin to representatives of foreign buyers. This process is being facilitated by the erection of cotton-ginning plants and cottonseed-oil crushing mills at Adana, the construction and equipment of the former being largely American and entirely modern.

*Principal markets.*—Although the Turkish cotton fiber is short and rough, it is in demand not only at home but also in Czechoslovakia, Italy, Germany, Spain, and France. The recent arrival at Liverpool of 1,000 bales of cotton from the port of Mersina, in Cilicia, marks the opening of a new source of supply for the spinning mills of Lancashire, according to the Westminster Gazette.

## OPIUM

Anatolian opium, like the Macedonian, is much sought after in foreign markets on account of its rich morphia content (11 to 15 per cent). In 1913, before the devastation of the Afion-Kara-Hissar and Smyrna regions by the Turko-Greek war of 1919–1922, there were 281,554 acres of land devoted to poppy cultivation, from which the yield approximated 10,000 cases of opium (1 case weighs from 60 to 75 kilos—132 to 165 pounds—according to grade). The present output runs between 2,000 and 4,000 cases. In 1922 the Turkish output of opium amounted to 2,400 cases, or about 156 metric tons, with a value around $1,200,000. The 1923 crop was between 2,500 and 3,000 cases, and the 1924 crop is estimated at 2,500 cases.

Local merchants at Smyrna estimate the 1924 Smyrna crop at about 4,500 baskets (10 to 12 okes per basket; 1 oke=2.8264 pounds). The consuming centers for Smyrna opium are: England, 30 per cent; Germany, 20 per cent; France, 10 per cent; the United States, 10 per cent; Japan, 20 per cent; and other countries, 10 per cent.

Turkish opium is classified as "druggist," "soft," and "Malatia." The former quality, as the name implies, is used mostly for medical purposes by manufacturers of morphine, is somewhat harder than the other two qualities, and yields about 12 per cent of morphine. It is produced in the following cities and towns of Anatolia, the order expressing their productive importance: Afion-Kara-Hissar, Eski-Shehir, Chai, Islam-Keui, Balikisir, Bolvadin, Ak-Shehir, Nalli-Han,

Digitized by Google

Chaushji-Keui, Bilejik, Geuveh, Sparta, Kutahia, and Konia. Kutahia, Eski-Shehir, Bilejik, and Geuveh are on or near the Anatolian Railway above Afion-Kara-Hissar; Nalli-Han, north of the Sakaria River, is about 90 kilometers northeast of Eski-Shehir and 130 northwest of Angora. Balikisir is on the Manisa-Panderma line; Islam-Keui, on the Smyrna-Kasaba extension; Sparta, near the eastern terminus of the Smyrna-Aidin Railway. Chai and Bolvadin, Ak-Shehir, and Chaushji-Keui are progressively southeast from Afion-Kara-Hissar, along the line to Konia.

"Soft" opium possesses a higher percentage (13 to 15) of morphine, has a somewhat golden color, and is preferred by smokers. It is produced in Mejid-Oezu (Haji-Keui), Amasia, and Gumush-Haji-Keui (all in the Province of Amasia); in Niksar, Tokat, Herek (Erbaa), and Zileh (in the Province of Tokat); and in Yózgad (Province of Yozgad).

The "Malatia" quality is produced in the regions of the same name. It yields from 11 to 12 per cent of morphia, and is sometimes mixed with the "soft" and "druggist" qualities.

*Penal code on sale and use.*—The commission charged with amending the penal code has modified article 96, relative to the sale and use of narcotics, to read as follows:

All those who import contraband medicinal opium, essence of opium, morphine, and its salts; morphine diacetyl and its salts; alkaloids of opium excepting codeine, their salts and their derivatives; cocaine, its salts and its derivatives; and all those who transport narcotics that have been imported and forwarded to the interior, those who buy and sell without authorization or hold them for selling purposes; those who act as intermediaries for the purchase and sale or supply it in any manner; those who open special premises for attracting the public to and who assist them in the use of these products, will be imprisoned for not less than six months and fined £T100 to £T1,000.

Those who dispense or receive narcotics in any way whatever, or use them in public, or who transport them on their persons, shall be imprisoned for two to four months and fined from £T50 to £T100. In the case of extenuating circumstances, the court may regulate only the payment of the fine.

All persons who may be found using these narcotics to a point where their habit has become a passion shall be liable to a forced cure, the duration of which shall not be less than six months. In places where there is no hospital they shall be imprisoned for a period of between six months and a year. These individuals will, however, have the right to choose a hospital and may be sent there at their own expense.

Those who procure narcotics through false prescriptions and those who supply them to young people who may be under 20 years of age shall be placed in prison for not less than a year and fined between £T100 and £T1,000. As to the individuals who unlawfully procure or furnish these products under Government control, such as doctors or sanitary agents, etc., they are subject to imprisonment for not less than two years and a fine of £T200 to £T1,000.

If death is caused, the responsible parties shall be subjected to imprisonment at hard labor for a period of time not less than five years.

All the furniture and objects which are found on the premises that are established for securing and facilitating the use of narcotics will be confiscated, and half of their equivalent value will be remitted to the individual who discovered the place to the authorities.

The worldwide movement for limitation of opium production will eventually affect Turkish poppy culture; but as the people of the country neither smoke nor eat opium, they probably will offer no serious objection to the substitution of some other profitable industry, such as sericulture, or tobacco and cotton growing, or raising of sugar beets.

Digitized by Google

*Poppy seed and poppy-seed oil.*—In case the limitation of opium production in Turkey actually takes place, the poppy would be grown for its seed and for the oil extracted, both of which even now enter into the daily diet of the Anatolian peasant; the surplus of seeds would be exported to foreign countries for use in artist oil painting, salad oil, olive-oil adulteration, and cattle feed (oil cake).

It is estimated that 18 okes of seed produce 7 okes of oil, the ratio being about 39 per cent. Poppy oil is somewhat cheaper than olive oil and widely used by the poorer classes of the population, not only as food and cooking butter but also in soap and varnish making and for burning in lamps. In 1913, some 172,760 acres of land were devoted exclusively to raising poppy seed; the yield was estimated at 74,500,000 pounds.

*Olives and olive oil.*—The olive trees of Turkey produce abundant fruit every alternate year; hence, tenders for the collection of tithes have always been offered for a period of two years, in order to establish an appropriate compensation for the years of scarcity. [The tithe and tax-farming system is now abolished.—*Editor.*]

Olive groves are found in western Anatolia in the regions of Aivali (south side Gulf of Edremid), of Gemlek and its near-by Bazar-Keui (extremity of southeastern arm of Marmora Sea), of Mudania and Erdek (Artaki; south shore of Marmora, west of Brusa), and of Aidin. They covered an area in 1913 of about 500,000 acres, numbered from 15,000,000 to 16,000,000 trees, and yielded about 300,000 tons of olives. The damage from war can not be computed. Thousands of fruit-bearing trees in their principal habitat in southwestern Anatolia were destroyed during the retreat of the Greek army.

The output of olive oil in 1913 was more than 50,000 tons, but at present it is only a fraction thereof. Local consumption depends on the price of cottonseed oil. If the latter sells for less than the olive oil, the two are mixed and the combination is sold as "pure" olive oil. However, since the imposition of a high tariff on imported vegetable oils by the recently promulgated protective law, the local use of pure olive oil has become more widespread.

Turkish olive oil enjoys a fair reputation abroad. Its exports to the United States in 1922 were valued at $16,592, as against $444,341 in 1921; but similar exports during 1923 and 1924 were negligible.

*Linseed, flax, and hemp.*—The flax output in Turkey is not important, although some 83,400 acres of land were devoted to its culture in 1913. Flax is grown in Turkey mainly for its seed, which is mostly exported, and for its oil, which is consumed locally. The principal producing regions are Adrianople, the Black Sea coast Vilayets of Izmid, Kastamuni, Samsun, and Bolu, and the central Vilayet of Konia. The 1913 output of linseed approximated 1,300,000 pounds, and that of flax 2,500,000 pounds.

Another fiber produced in Turkey on a commercial scale is hemp. In 1913 some 43,500 acres were under cultivation and yielded a crop of about 10,500,000 pounds. The chief producing regions were Kastamuni in the north, Sivas in the central region, and Urfa on the Syrian border.

Digitized by Google

*Sesame.*—Sesame was produced in Turkey in 1913 to the extent of some 45,000 tons, from an acreage of 512,382, mostly in the regions of Smyrna, Adalia, and Mersina in southwestern Anatolia, and of Adrianople in European Turkey. The war has disturbed the industry and greatly reduced its output.

Sesame sold in Constantinople carries six distinct trade names: Adalia, Mersina, Smyrna, Adrianople, Sudan, and China. Because the grains are larger and softer and yield a more abundant measure of oil, the Adalia quality is considered superior. The others are harder and serve chiefly for the manufacture of "tahin" (crushed roasted sesame), a pulp which is the basic element in the famous Turkish sweetmeat called "halva."

### OTHER INDUSTRIAL AND MEDICINAL PLANTS

*Licorice root.*—Turkey, as well as the Caucasus, Syria, and Mesopotamia, produces abundant quantities of licorice root, of which thousand of tons are dug annually for export. It is employed in the manufacture of chewing and smoking tobacco and for flavoring confectionery and beer imitations. The business is controlled by an American concern operating in Turkey. Hydraulic machinery is used for pressing the root into bales, and large numbers of natives are employed in collecting an article which they consider a pest and worse than worthless.

The root is obtained chiefly in the region tributary to Smyrna. Political and military disturbances in the producing region from 1919 to 1922 prevented its gathering and baling, and foreign orders were diverted toward the Caucasus. More recently, however, the business has been resumed in Turkey. Licorice root was exported to the United States during 1923 to the value of $806,691, and during 1924 to the value of $600,750.

*Spices.*—Of all the spices grown in Turkey, aniseed is the most important. It is used principally in flavoring alcoholic drinks, especially the native "duzico," and as decoration on cakes. In 1912 some 14,676 acres of land were devoted to aniseed culture, and a crop of about 700,000 pounds was gathered.

Caraway seed, mustard, and red pepper also are produced, but in small quantities.

*Gum tragacanth.*—Gum tragacanth, which is the solidified sap of various species of Astragalus growing wild on the mountains of Anatolia and Persia, drops from incisions in the stem near the root of the bush. The best qualities are used in medicine and in the manufacture of confectionery. Inferior grades are employed for putting glaze on paper, sticking down the outside leaf of cigars, in the preparation of varnishes, and in the finish of manufactured cotton goods and block printing.

The gum produced in Turkey, and especially that from the Angora, Kaisaria, and Yozgad districts, is particularly for the foreign trade. In the markets of Mersina and Constantinople this gum is graded according to color, the best qualities being recognized by their almost perfect transparency and the inferior ones by their various shades of yellow.

The pre-war Anatolian output of gum tragacanth amounted to about 700,000 pounds a year. Exports for 1922 were unimportant,

Digitized by Google

as stocks accumulated during the war had been shipped during the armistice period; but with the opening of 1923 the business experienced a fresh stimulus, and the exports for the year reached 614,338 pounds, of which 100,238 pounds went to the United States.

*Attar of roses.*—The Turkish rose-oil industry made good progress during the war, as large quantities were purchased by Germany and Austria. During the postarmistice period, the demand slackened, either because foreign buyers found it cheaper to purchase from Bulgaria on account of the relatively greater depreciation of the lev or because certain unscrupulous dealers in Turkey began mixing rose oil with other essences, such as geranium, and selling the adulterated product as "pure rose oil," Foreign buyers now insist upon payment only after analysis at the port of destination and in accordance with such analysis. Local certificates of analysis appear unacceptable to foreign purchasers, and as a result few sales have taken place during the past three years. Burdur and Sparta, in the lake region of southwestern Anatolia, are the principal producing regions, their yield in 1913 amounting to about 600 pounds.

*Vegetable dyes.*—Formerly large areas of land were under cultivation in Turkey, yielding important quantities of madder and saffron. But as German aniline dyes came to be offered at considerably lower prices this industry gradually lapsed, leaving the German dyes in control of the market. Dye plants are now seen growing wild in various districts, mainly in the vicinity of Zafranbolu (western Kastamuni Province) and of Tokat. The more important are madder, sumac, valonia, gallnuts, and saffron. Another dye was extracted from the berries of buckthorn plants, called yellow berries, which are found growing wild in the interior of Anatolia in the regions of Kaisaria and Angora and in the back districts of Smyrna.

*Valonia.*—Valonia, which enters into the tanning industry, is the acorn of a member of the oak family. Valonia oaks grow on the high plateaus of western Asia Minor, principally in the districts of Ushak (which furnishes one-third of the total production) and Borlu, both along the prolongation of the Smyrna-Kasaba Railway; of Aidin and Nazilli, along the Smyrna-Aidin Railway extension; and of Aivajik and the Dikeli Dagh, inland from the north shore of the Gulf of Edremid.

After the gathering, which begins in August, the valonia is spread out in the open and exposed to the sun until the bleaching indicates that the fruit has become altogether dry. The harvest ends in November, and anything gathered after that date is called waste, as it loses its strength by oxidation. The source, the conditions under which the harvest has taken place, and the date of the gathering have a great influence on the quality of the product.

Before it is exported, the valonia is graded by expert workmen according to content of tannin. Market brands are "criblé," containing from 38 to 42 per cent of tannin; "una aqua," 37 to 38 per cent; "uso englese," 33 to 35 per cent; "trillio," 38 to 42 per cent; and "waste," 27 to 30 per cent. Tannin is derived chiefly from the acorn bark and particularly from the little bristles or beard, called "trillio." The latter product is detached from the cup through rubbing and is either sold separately or mixed with other qualities. "Trillio" comes in several qualities, which are detectible only by the expert's eye.

Digitized by Google

During the year 1913–14 Turkey exported 54,997 metric tons of valonia, valued at £T54,628 (about $240,000), mostly to Russia and Belgium. In 1921 its valonia exports to the United States were valued at $470,531; in 1922, at $198,605; in 1923, at $260,736; and in 1924, at $118,505.

*Gallnuts.*—Gallnuts abound in the Smyrna region. The 1913 crop amounted to some 500 tons. The natives, who gather the nuts from the mountains, devote little attention to systematic collection, the work being tedious and necessitating the covering of long distances on foot and giving often only mediocre results.

## FRUITS

### FIGS

Turkish figs are famous the world over. Only one type of fig is grown in Asiatic Turkey—the "Smyrna." Two varieties of this fig are, however, recognized in the Smyrna trade—the "Bardajik," a small fig with a thin skin, which does not dry satisfactorily and is largely consumed fresh; and the "Lob Injir," or "Sari Lop" variety, which is identical with the Calimyrna fig grown in California. This variety retains its flavor and quality after drying, and constitutes the bulk of Smyrna's export trade in "manipulated" and "natural" figs.

*Caprification.*—The Smyrna fig, like the Calimyrna fig of California, requires caprification. While the growers, generally, have their own Capri trees, the trees are not usually found in the immediate vicinity of the Smyrna-fig orchards. Caprification is universally practiced, the customary method being to string the Capri figs on reeds, which are then hung in the branches of the Smyrna trees. Two or three distributions are made, beginning early in June. The figs are gathered from the latter part of August to early in November.

*Production.*—The production of figs in commercial quantities in Turkey is practically confined to some nine or ten districts lying to the south and east of the city of Smyrna, through which port the entire export trade in figs is effected. The best quality of figs is grown in the Meander (Buyuk Menderes) Valley, where climatic conditions, soil, and conformation of terrain appear to be especially favorable to fig production. Practically all the figs shipped to the Smyrna market for the export trade are carried by the Smyrna-Aidin Railway, which runs through the center of the producing area. The city of Aidin is the principal center for the internal trade. Production for the year 1913 and for the past four years is estimated to have been as follows:

| | Long tons |
|---|---|
| 1913 | 19,500 |
| 1921 | 18,000 |
| 1922 | 22,000 |
| 1923 | 23,000 |
| 1924 | 26,000 |

*Export.*—The larger portion of the Smyrna fig crop is exported to the United Kingdom and the United States. During the year 1913–14 Turkey exported 31,794 metric tons of dried figs, valued at £T54,932 (about $241,700). Similar exports to the United States during 1923 were valued at $983,124, and during 1924 at $1,131,422.

Digitized by Google

## RAISINS

Vineyards are found throughout Turkey in Europe and Turkey in Asia. The principal producing regions are in the Anatolian Vilayets of Smyrna, Brusa, Konia, Angora, Adrianople, Nigdeh, and Kaisaria, and in the European Vilayet of Adrianople. The Smyrna district is by far the most important.

*Varieties.*—Smyrna Province produces three varieties of raisins—"sultanas," "rosakias," and "black" raisins, of which sultanas constitute more than 90 per cent. The Smyrna sultana corresponds to what is known in California trade as the "Thompson seedless," both being produced from the "sultanina" grape. These are the genuine "sultanas" of commerce, and the different designation used in Smyrna and in California is purely a question of terminology. The raisins known in the California trade as "sultanas" are a round-fruited variety with a high acid content, and are an inferior type of the true sultana. The Smyrna trade has no special designation for this variety, the small quantity produced usually being mixed with the oval-fruited sultanas which constitute the bulk of the raisin production. The Smyrna "rosakia" corresponds to our "élemé." Both the rosakia and the Smyrna black raisin, which is known in Smyrna as the "Turkish black," are dried, although a considerable quantity of the grapes is also used for wine making or consumed fresh.

*Production.*—Practically the entire commercial crop of Turkish sultana raisins is produced in approximately 15 districts adjacent to the port of Smyrna, through which the entire export of the crop is effected. The two most important districts, from the standpoint of quantity production, are Manisa (Magnesia) and Nif (or Nymphio, about 30 kilometers east of Smyrna), which produce between them nearly 50 per cent of the entire output. From the standpoint of quality the two most important districts are Kara-Burun (peninsula head at entrance to Gulf of Smyrna) and Vurla (coast, 30 kilometers southwest of Smyrna), but in quantity their production is less than 10 per cent of the total.

The figures below, taken from the most trustworthy sources available, show the Smyrna raisin crop for the years 1913–1924:

| | Metric tons | | Metric tons |
|---|---|---|---|
| 1913 | 58,500 | 1919 | 29,500 |
| 1914 | 49,500 | 1920 | 27,000 |
| 1915 | 32,000 | 1921 | 35,000 |
| 1916 | 22,500 | 1922 | 35,000 |
| 1917 | 30,000 | 1923 | 38,000 |
| 1918 | 27,000 | 1924 (estimated) | 50,000 |

It is impossible to estimate how much raisin-producing land in Smyrna was sacrificed in 1924 to make way for its record production of tobacco; but that it was considerable, particularly in those districts settled by Turks from Western Thrace, is unquestionable. A reliable report places the reduction in raisin acreage in the Kara-Burun district alone at 35 per cent. The Turkish Government officials are greatly alarmed at the situation, and stated that in future only agriculturists thoroughly familiar with viticulture will be placed on the Government-controlled raisin lands and on the vineyards abandoned by the Greeks.

*Export.*—The United Kingdom receives the largest share of Turkey's raisin crop, but a considerable quantity is also shipped to the

Digitized by Google

United States. Exports to the United States in 1921 were valued at $747,677, and in 1922 at $322,872. During 1923 shipments to the United States covered 573 metric tons, valued at $122,734; during 1924 the shipments reached 855 metric tons, valued at $140,867.

### OTHER FRUITS

*Apples.*—Apple trees are found scattered all over Asia Minor and Thrace, but the regions of Kastamuni, Konia, Mamuret-ul-Aziz, Samsun, Sivas, Van, Smyrna, Trebizond, and Angora are especially favored. Apple cultivation in Turkey has attained a fairly high degree of development, the crop in 1913 amounting to about 30,000 tons, most of it consumed locally.

*Pears.*—Unlike the apple, the Anatolian pear is not well known in the markets, although it has developed the most delicious varieties. The principal producing regions are Mamuret-ul-Aziz, Konia, Afion-Kara-Hissar, Trebizond, Sivas, and Smyrna. The 1913 output approximated 22,000 tons, and was used mainly for local consumption in fresh, sun-dried, or preserved form.

*Plums.*—Plum trees grow throughout Turkey, yielding plums of innumerable varieties. The Konia, Trebizond, Mamuret-ul-Aziz, and Smyrna regions produce abundant quantities. The 1913 crop was estimated at 15,000 tons.

*Apricots.*—Turkey produced large quantities of apricots before Syria was detached; but the present culture is reduced almost one-half, and the yield amounts only to some 10,000 tons annually. The chief producing regions are Mamuret-ul-Aziz, Konia, Sivas, Kaisaria, and Angora.

*Citrus fruits, cherries, and melons.*—Oranges, tangerines, lemons, cherries, and melons are produced in Turkey in more or less important quantities. The citrus-producing districts are Adana (60,000 tons), Smyrna (20,000 tons), and Trebizond (15,000 tons).

Giant watermelons, weighing from 150 to 200 pounds, are produced in the region of Diarbekir, and have to be consumed locally owing to lack of transportation facilities.

### NUTS

Nuts rank high among Turkish products entering into the world's trade. They include filberts, walnuts, chestnuts, almonds, pistachios, and pignolias.

*Filberts.*—The filbert crop, the most important of Turkey's nut resources, is gathered chiefly in the back districts of the Black Sea coast between Ordu and Rizeh, eastern Trebizond; the main producing regions are those of Kerasund, Trebizond, and Ordu.

The 1913 output amounted to 50,000 tons, and the quantity exported approximated 25,000 tons. About one-fourth of this export supply was shipped unshelled (pointed hazelnuts); the remaining three-fourths, consisting of round hazelnuts, were cracked and exported as hazelnut kernels, or shelled filberts. The conversion of unshelled hazelnuts into shelled reduces the weight by 50 per cent. The 1924 crop (mostly Black Sea coast regions) yielded some 90,000 sacks of shelled nuts (176 pounds per sack).

Digitized by Google

Kerasund, on the Black Sea, used to be the principal port of shipment, but since the war the business is handled by export houses in Constantinople. Transactions in Turkish filberts are affected by the Spanish crop; but in the main Turkey is estimated to supply 60 per cent of the world's consumption of hazelnuts.

Filbert shipments from Constantinople to the United States, valued at $153,611 in 1913, amounted to 1,994 tons in 1919 and were valued at $667,419; but in the succeeding years the shipments declined steadily until they had fallen to 691 tons in 1922, valued at $169,217. Shipments during 1923 rose again to 1,032 tons, valued at $251,258, but during 1924 they dropped to 634 tons, valued at $250,899.

*Walnuts.*—Second in importance among Anatolian nuts is the walnut, growing chiefly in the Samsun, Diarbekir, and Nigdeh regions. At Samsun there are firms maintaining warehouses and satisfactory sorting services. The 1913 crop amounted to some 25,000 tons. Unshelled walnuts are rarely exported, but shelled nuts are annually shipped abroad to the amount of about 1,000 tons.

*Chestnuts.*—Almost the entire chestnut crop of Turkey is gathered in the northwestern section of Asia Minor, with Brusa, Izmid, and Smyrna as the main centers of production. The 1913 output approximated 10,000 tons, but the recent Turko-Greek War has provisionally reduced the annual harvest.

*Other nuts.*—Small quantities of other nuts also are exported from Turkey. These are mostly almonds, pistachios, and pignolias (the edible seed of the pine cone), all found largely in the more southerly Turkish Provinces.

## LIVESTOCK

### PRESENT CONDITIONS

Turkey's agricultural motive power is largely human and animal. Machinery has so far played an unimportant rôle in improving the lot of the peasant, since he raises his own horses, asses, oxen, water buffaloes, sheep, etc., for draft and food purposes. Stock raising in the more fertile agricultural sections is of small economic importance; but on the high plateaus the breeding of sheep and goats has attained a fair degree of development, although conducted under primitive conditions.

Animal husbandry, as known in more modern countries, has not yet been developed in Turkey, and the cultivation and improvement of meadows and vegetation for animal feed are left to Nature's will. Herds are taken to graze on grounds where good and bad grass grow together. These grounds supply sufficient food in spring and in the latter part of autumn, but in summer the grass is dried up. In winter the livestock is fed on chaff and a little hay.

Barns and stables, though not seldom shared by the peasants, hardly deserve their name, and large numbers of animals perish every year from the severe cold prevailing in most of the stock-raising districts. Because of these conditions, as well as the attacks of wild animals, livestock losses have been unduly heavy. The great war and the chaotic conditions subsequently prevailing in the interior have further depleted the herds, the percentage of such loss being estimated at 50 per cent.

Such rough and abnormal conditions produce animals that are rugged but scrubby. The cows are lean and small and give little

Digitized by Google

milk, and even their meat is not considered excessively palatable. Constantinople imports nearly all its larger animals required for slaughter from Bulgaria, Rumania, and Russia.

### PROJECTED IMPROVEMENTS

Before the war the Government had begun to make serious plans for the improvement of herds in Turkey and for the introduction and extension of modern veterinary hygiene. But these plans did not progress beyond the occasional distribution of bulls of good quality in several Vilayets with a view to improving bovine animals. A project for the improvement of horse breeding was also under consideration. The number of horses having become considerably reduced after the Balkan war, the Government conceived the idea of providing a central stud with 40 branches for the purpose of spreading throughout Turkey a rational system of breeding horses. A round sum of £T3,000,000 was thought necessary for the carrying out of this project. The Government was on the point of endeavoring to interest foreign capital in the enterprise when the World War broke out, and importations for breeding ceased until recently.

Among the improvements immediately necessary may be mentioned the seeding of meadows and their maintenance by an up-to-date system of irrigation in order to feed the herds properly during the summer season; the creation of pasture lands free from bad grass; the building of modern stables for winter; the growing of fodder and the proper cutting of hay for winter feed; and the selection of animals suitable for crossbreeding.

### SHEEP AND WOOL

*The Turkish sheep.*—Sheep are scattered abundantly throughout Turkey; in 1913 there were over 15,000,000 head. Turkish sheep are of two varieties—the Rumelian, or long-tailed, and the Anatolian, or fat-tailed. Rumelian sheep usually have horns. The prevailing color of both varieties is white. The peasants herd their own flocks, which do not usually exceed 150 head; one rarely encounters a flock of 500 head.

*Wool production.*—Shearing takes place once a year during the months of April and May. Foreign buyers have representatives in the interior who gather the wool and ship it to the nearest port. In many cases they advance money to needy peasants against the next shearing, especially when the "agnam," or sheep tax, falls due early in spring.

With the exception of Thrace, where some wool is clipped of sufficient fineness to be used in local factories for army uniforms, the country as yet produces hardly anything but carpet wool. Turkish wool is marketed under three nomenclatures—good, average, and inferior. Rumelian wool is classified as good, as it is cleaner than the Anatolian and also longer by reason of colder weather and better grass.

Sheep were depleted more than goats as a result of the World War, because mutton was preferred in feeding the armies. It is safe to estimate the loss from this source at between 60 and 70 per cent. The Turkey of pre-war territorial extent produced annually some 100,000 bales of carpet wool (approximately 280 pounds

Digitized by Google

to the bale). The Turkey of postwar extent produced only 4,500,000 pounds in 1923. The clip in 1924 was estimated at 7,000,000 pounds, distributed among the chief producing Provinces, as follows: Trebizond, 1,200,000 pounds; Sivas, 1,000,000 pounds; Yozgad, Amasia, and Chorum combined, 500,000 pounds; Konia, 1,150,000 pounds; Afion-Kara-Hissar and Eski-Shehir combined, 1,300,000 pounds; Thrace, 950,000 pounds; and Constantinople tanners' wool, 900,000 pounds.

Prior to the war America was the principal customer, shipments to the United States in 1912 having a value of $2,044,442, and during 1913 a value of $1,338,696. During 1923 the corresponding shipments aggregated 1,071,000 pounds, valued at $190,600, and in 1924 they increased to 1,336,000 pounds, valued at $294,500. The newly created carpet and rug industry in Greece is now absorbing nearly all the Turkish wool, so that only minor shipments are made to the United States and Europe.

*Outlook.*—Factors favoring the revival of sheep husbandry are Turkey's climate, physical features, and traditions, to which must be added the advancing world civilization, which requires an ever-increasing quantity of wool. The Government is endeavoring to foster sheep raising through tariff legislation, and it is believed that measures will also be taken to improve the breed and to alleviate the burden of taxation. With high meat and milk prices and with wool selling at rates 25 per cent above those before the war, there is not much fear of the flocks of sheep being indefinitely neglected.

### GOATS AND MOHAIR

*The Angora goat.*—There are two kinds of goats in Turkey—the common goat, scattered throughout the country, and the mohair or "tiftik" goat, which is raised on the central plateau of Anatolia and is generally called the Angora goat. Prior to the World War common goats numbered about 15,000,000 head and mohair goats about 3,000,000, not including those of the Provinces afterwards detached from Turkey. These numbers were subsequently reduced 50 per cent by war conditions, half of the animals having been killed to feed the armies or having died from disease, neglect, or climatic rigors. The chief loss was caused by the ravages of the Turko-Greek war of 1919–1922, which centered in the very best mohair districts (Afion-Kara-Hissar, Kutahia, and Eski-Shehir).

*Mohair production and export.*—The hair of the common goat is coarse, whereas that of the "tiftik" goat is longer and finer. Although the Angora goat has been successfully transplanted to South Africa and America, it is distinctively a Turkish animal, and the finest mohair still comes from Turkey. It is a most valuable product, owing to new processes abroad of utilizing the fleece in dress goods and imitation furs, besides its increased employment for yarns and braids, for plush in railway carriages, for linings in motor cars, for rugs, bookbindings, shoes, and gloves.

Turkey's annual output of mohair for foreign markets prior to the war averaged 60,000 bales (200 pounds each), or about 50 per cent of South Africa's production. This was exported mainly to Great Britain, the United States, Germany, and France. Mohair production by 1922 had fallen to about 2,242,000 okes (6,345,000

Digitized by Google

pounds), and by 1923 to about 2,000,000 okes (5,660,000 pounds), or approximately by 50 per cent since 1913. Production in 1924 was approximately 6,600,000 pounds. Turkey's shipments of mohair to the United States during 1922 reached 2,530,000 pounds, valued at $807,680; during 1923 shipments declined to 1,246,000 pounds, valued at $587,460; and during 1924, to 863,000 pounds, valued at $363,165.

### CATTLE

Turkish cattle comprise water buffalo and oxen, in addition to ordinary kine. The buffaloes are used as draft animals. Buffalo milk contains a larger proportion of butterfat than cow's milk and is sold locally at low r prices. Buffalo meat also is low in price. In 1913 there were about 825,000 of these animals in Turkey; but their number, along with that of other bovine animals, has been reduced about one-half by war conditions.

Oxen also are used for draft purposes. Although large numbers of cattle are slaughtered every year for food, the selection is usually confined to those too old to serve any other purpose. Calv s are seldom slaughtered. In 1913 there were 5,665,500 domestic cattle in Turkey, excluding those in Provinces since detached.

Cattle are scattered throughout Turkey, but individually owned large herds do not exist. Most of the breeding is conduct d under the care of individual peasants, who look after their own welfare without particular veterinary assistance or advice and largely without protection against wild animals and brigands.

### HORSES

The principal types of horses found in Turkey are the Arabian, the Kurd, the Cherkess (Circassian), and the Anatolian. The thoroughbred Arabian steppe horses were once very prominent in Turkey; at present their number is rapidly diminishing, and no adequate measures have been taken for preserving or improving the race. Most of the Kurd and Cherkess horses are good.

The Cherkess type is small and lean but wiry and strong; the Kurd is a mountain horse resembling the Arab type. The Anatolian horse is tough and enduring, but can hardly be used for the plow or other field work, owing to its restless character. It is generally used as a saddle or pack horse. By crossing this breed with the Arab or notably with the Hungarian race, there is produced a strong, bony, sinewy horse of the type required for cavalry and on the large-landed estates.

In 1913 there were about 1,000,000 horses of all kinds within the present boundaries of Turkey. This number has been heavily reduced since 1913, as nearly all horses were requisitioned by the Government during the war, where many of them died. Their number at present is unknown, but is believed not to exceed 500,000.

### ASSES AND MULES

The ass, found all over Turkey, is used as a beast of burden for carrying people, crated merchandise, water, milk, fruits, farming implements, firewood, etc., as well as for drawing the plow and leading camel caravans. The number of asses in Turkey is esti-

Digitized by Google

mated at 1,300,000. The breed is larger than the average donkey and is more fiery. The white Arab breed is also found occasionally, as well as the silver-colored donkey of Bagdad, much prized as a saddle animal.

The mule is little developed, for many orientals shun crossbreeding as a sin. However, the use of the mule has gained ground since the war, many having been brought in for military transport purposes, so that there are now about 125,000 in the country.

### CAMELS

The breeding of camels attained a fair degree of development in Syria and Iraq, Provinces no longer belonging to Turkey; but there is practically no camel breeding in present-day Turkey. The approximate number throughout the country at present is 200,000, and diminishing. They not only serve as pack animals but their milk and meat are used as food. Small quantities of camel hair, used in the manufacture of coarse but highly-prized cloth, are annually exported.

### HOGS

Hogs are raised in Turkey in very limited numbers by Christians. As Moslems do not eat pork or any derivative of it, hog raising is confined to the vicinities where considerable numbers of Christians live, notably the Province of Constantinople. The total number of hogs in Turkey is believed not to exceed 5,000.

## ANIMAL PRODUCTS

### HIDES AND SKINS

Raw skins constitute an important article of Turkish export, the yearly output varying between 3,000,000 and 4,000,000 pieces. Of this number, 65 per cent are sheepskins and 35 per cent are goatskins. The main ports of shipment are Trebizond, Samsun, Constantinople, Smyrna, and Mersina.

Turkish hides, on the other hand, are handled by local tanneries, as their exportation is prohibited by law. The local output does not suffice for the requirements of the country, as buffaloes, oxen, cows, etc., are not slaughtered on an important scale for food, the flesh of the sheep and goat being preferred. The total annual production hardly amounts to half a million pieces, and quantities of dressed hides are sometimes imported from China, India, Egypt, and Argentina.

Trade in skins (lamb, kid, goat, and sheep) with the United States has fallen off greatly since prior to the war. During 1909 Turkey (then territorially much larger) shipped skins to the United States to the value of $1,251,000, and during 1913 to a value of $1,089,000. By 1922 this trade had fallen to $130,000, and by 1923 to $62,000, but picked up again in 1924 to $154,000.

### SAUSAGE CASINGS

A Turkish animal by-product much in demand in the United States, Germany, England, Austria, and other northern countries is sheep casings, or guts, used in the sausage-making industry. Turkish sausage casings are assorted in sizes of 17 to 30 millimeters

Digitized by Google

in diameter, their measurements being established by filling them with water.

The guts are assembled into rings of 25 meters, each comprising five pieces; or into hanks of 85 meters, each containing not more than 15 pieces. The rings or hanks are preserved by soaking in salt water for 24 hours in hot weather or for 36 hours in cold. In their pickled state they are afterwards packed for export, in barrels lined with cheesecloth to protect the guts from deterioration through touching the staves. Barrels usually contain 500 hanks.

Lamb guts, dried unsalted for musical-instrument strings, are purchased by Germany. The guts of animals of the bovine race and of goats also are dried and shipped for sausage casings.

During 1912, 1913, and 1914, Turkey's annual shipments of casings to the United States had a value of less than $200,000. In 1922, however, this trade jumped to $1,358,000, but fell off again in 1923 to $686,000, and in 1924 to $386,000.

### DAIRY PRODUCTS

Dairy farming of late years has developed rapidly in Turkey, especially in the neighborhood of Constantinople and its suburbs and in Thrace. Government dairies exist in the Vilayets of Trebizond, Brusa, Angora, Sivas, and Konia, in addition to six ambulant dairy schools rendering valuable service. Children of farmers are accepted free in these schools, in order that they may familiarize themselves with modern methods.

*Milk.*—Milch cows brought from Aleppo and Damascus are the best known in Turkey, yielding from 15 to 20 quarts of milk per day. Although these cows are gradually being distributed throughout the country with a view to improving local dairy herds, there is still relatively little fresh cow's milk to be obtained. Recourse is had largely to canned milk imported from the United States, Switzerland, and Holland, or to the goat's milk that is preferred by the natives.

*Cheese.*—Cheese fresh and white, cheese preserved in salt water, cream cheese, and dry cheese of long conservation called "kasher" or "kashkaval" are produced in Turkey in more or less important quantities, principally in Thrace. However, considerable quantities also are imported into Constantinople and other large cities in Turkey from Bulgaria, Holland, Switzerland, and France, in response to the demands of native consumption.

*Butter.*—The Turkish butter output is exceedingly limited. The Konia region is the most productive center, yielding about 3,500 tons annually. The butter made in Asia Minor is often salted and lacks delicacy and aroma as a result of the poor feed supplied to animals. Large quantities of butter are annually imported from Holland, Denmark, Hungary, the United States, and other dairying countries. In 1913 Turkey produced some 35,000 tons of butter.

### POULTRY AND EGGS

Turkeys, ducks, geese, and chickens are scattered abundantly throughout Turkey, although poultry raising is carried on under primitive conditions. Brooders and incubators are practically unknown locally. According to Turkish official statistics, there were

Digitized by Google

about 32,500,000 head of poultry in Turkey in 1914, from which was derived a considerable export trade in both eggs and poultry. The largest consuming centers were the Turkish seaports and France. The principal poultry and egg-producing regions are Smyrna, Ada-Bazar, Eski-Shehir, Sivas, and the Black Sea littoral.

### HONEY AND BEESWAX

The production of honey and beeswax in Turkey is of slight importance, although in normal times there were about a million beehives in the country. The primitive methods still in vogue result in producing only a relatively small quantity (8,500,000 pounds) of honey of inferior quality. The wax output approximates 1,000,000 pounds. The principal producing centers are Smyrna, Kastamuni, Mentesheh, Konia, Sivas, Afion-Kara-Hissar, Angora, Balikisir, Adana, and Adrianople.

### SILK AND COCOONS

The Turkish raw-silk production prior to 1914 was an important industry, centering largely in the Brusa region, and patronized particularly by French and Swiss interests. In 1914 the country had 160 silk spinneries, not counting some 170 in Syria, which no longer belongs to Turkey. At the present time there are only about 50 spinneries within the existing Turkish boundaries.

*Production, 1914 and 1923.*—The corresponding decline in output in the interval is shown in the following figures of Turkish production for the respective years.

| Production item | | 1914 | 1923 |
|---|---|---|---|
| Cocoons | kilos | 18,000,000 | 1,200,000 |
| Silk | do | 1,500,000 | 100,000 |
| Waste silk | do | 400,000 | 20,000 |
| Pierced cocoons | do | 100,000 | 4,000 |
| Waste cocoons | do | 4,000,000 | 250,000 |
| Silkworm eggs | ounces | 1,000,000 | 30,000 |

This backward condition of the industry has resulted from shortage of labor, due to conscription and exchange of populations; from destruction of nurseries and spinneries, along with villages and hamlets; and from mutilation of mulberry groves, many trees having been cut down for firewood during the war. However, the excellent quality of the Turkish product and the world's growing need of raw silk will undoubtedly bring about an early revival of the industry.

*Public aid.*—As a measure of protection against the swamping effects of the artificial-silk industry, a law was promulgated early in 1924 forbidding the importation or use of artificial silk except for rugs and carpets. In a further effort to foster the industry, the National Assembly in April, 1925, included silk cocoons among industrial materials which are exempt from the octroi tax. A credit has been placed at the disposal of spinning mills, and silkworm producers are to receive similar assistance. Finally, a special commission is investigating ways of developing the Brusa silk industry.

Digitized by Google

*Outlook for development.*—The constant expansion of the American silk manufacturing industry requires ever-increasing quantities of raw silk from abroad. In this relation, Greece, Turkey, Syria, the Caucasus, Persia, and Turkestan are capable of extraordinary development in raw-silk production. Hitherto Levant silk, in limited measure, has been brought to America after first passing through conditioning houses in Milan, Zurich, or Lyon. The output of Levant silk prior to the war amounted to some 6,000,000 pounds, or about 50 per cent of the European and some 12 per cent of the Indian and Far Eastern production. In view of the signal success attending the efforts of American cigarette manufacturers in fostering and exploiting Turkish tobacco for their needs (see section "Tobacco"), our silk manufacturers should derive vital advantage from a similar sustained effort to revive and develop sericulture in the Near East as a potential source of raw-silk supply, especially while the general reconstruction of Turkish industries is dawning.

## FURS

The Turkish fur output is not inconsiderable, and is believed easily capable of increase. Anatolia produces a large variety, including hare, fox, jackal, badger, wolf, skunk, marten, otter, and wildcat. The estimated annual production of principal furs in all Turkey is given as follows: Marten, 43,000 pieces; fox, 150,000; wolf, 3,000; jackal, 70,000; skunk, 5,000; beaver, 15,000; hare, 300,000.

Fur skins are usually shipped uncured, in the raw, sun-dried state. At Constantinople they pass in transit and pay no export duty nor sanitary-inspection tax. Local merchants have their scouts in Russia and Anatolia collecting furs, which subsequently are bought in Constantinople by agents of American, British, French, and German firms. American demands are mostly for fox, marten, and skunk; but Russian furs, such as silver fox, sable, beaver, and white bear, also figure in these purchases.

Prior to the war substantial quantities were shipped to France, Germany, and England. Since the beginning of 1919 France has been leading, with America and Germany in rivalry for the second rank. During 1922 there was exported from Constantinople to the United States $405,271 worth of raw furs, as against $202 045 worth during 1921. During 1923 similar exports from Constantinople and Smyrna covered 434,940 pieces, valued at $647,879, and during 1924 they accounted for 546,763 pieces, valued at $708,670. It is not known to what extent Caucasian and Russian furs figured in these shipments.

Digitized by Google

# FISHERIES

The waters contiguous to Turkey abound in fish usually found in the temperate zone, such as oysters, lobsters, mackerel, sardines, turbot, red surmullet, tunnyfish, swordfish, sturgeon, goby, dolphins, etc. From the fresh-water streams and lakes are taken in profitable quantities bream, perch, pike, pickerel, bleak, barbel, mullet, bass, and tench. Off the coast, in the waters of the eastern Mediterranean, are gathered sponges of the finest texture known, such as are often found in hospitals of the Occident. Sea fishing is centered at Constantinople, Trebizond, and Smyrna, and fresh-water fishing at Brusa.

The value of the annual catch for each of these regions is estimated by the Ottoman Public Debt Administration as follows: Constantinople, £T1,500,000; Smyrna, £T700,000; Trebizond, £T150,000; Brusa, £T460,000; or a total of £T2,810,000.

## FISHING REGULATIONS

The revenue from fishing is one of those ceded to the Ottoman Public Debt for administration in the interest of Turkey's foreign creditors. The industry has been therefore very carefully and effectively controlled, and even the individual fisher for pleasure has had first to secure a permit. According to the nature of the undertaking, the cost of the permit varies from 3 piasters for fishing with hook and line to £T32 for diving for sponges.

A tax of 21 per cent to 24 per cent of the catch is levied on all fishing operations in the Straits zone. All other sea fishing, including fishing in lakes and in the mouths of rivers emptying into the sea, is taxed 20 per cent. Fishing in fresh-water streams not emptying into the sea or in artificially maintained fishing grounds in lakes, as well as mother-of-pearl and pearl fishing, pay a tax of 11 per cent. Dolphin oil also is taxed 20 per cent. Sponge and coral fishing are untaxed, as also is fishing in grounds farmed out to concessionaries against payment of a fixed sum. A further small tax is levied on fish transported from the center where they are taken to a domestic market center or abroad.

## STATE ENCOURAGEMENT

A law enacted December 1, 1914, and designed to encourage the fishing industry provides the following facilities for persons desiring to establish factories in Turkey for the manipulation of fisheries products: Free grants of land up to 5 dunums (about 1.1 acres) for the building or enlarging of factories; exemption from the land tax of such lands, and the constructions thereon; free entry for building material, machinery, equipment, tools, etc., and for raw materials



Digitized by Google

not obtainable in the country; remission of the export duty (since abolished) on products exported abroad.

The belief prevails that the fishing industry is capable of great expansion, the operations to date having been decidedly haphazard and disorganized. The industry has suffered greatly by the exodus of the Greeks who were actively engaged in it, and this applies also to the domestic market for fish, of which the Greeks were important consumers. To such an extent has the revenue from this source been cut that the Ottoman Public Debt Commission is working on plans for encouraging the industry. Turkey still has an important seafaring population and, in view of the prospect of continuous employment and good pay which fishing offers, it is impossible that the void left by the Greeks will remain unfilled.

Digitized by Google

# FORESTRY

## FOREST RESOURCES

Turkey is endowed with a forest wealth which, among all of her natural resources, has aroused the least interest and suffered the most neglect. In 1913 the wooded Vilayets of the then Ottoman Empire, covering a total area of 351,685 square miles, embraced a timber area of 33,973 square miles, or 9.66 per cent of these Vilayets.

Ownership of the forest land of Turkey is 88.03 per cent governmental, 6.13 per cent private and concessionary, 1.66 per cent village community, 1.22 per cent "evkaf," or applied to pious foundations, and the remaining 2.96 per cent of unknown or doubtful proprietorship.

### DISTRIBUTION

In the 12 years of war (1911–1922) that reduced the Turkish domain to little more than Eastern Thrace and Anatolia, its forests happened to be so distributed that three-fourths of the original forest area (25,419 square miles), constituting 8.98 per cent of the present national area, remains in Turkey's possession. Three-fourths, again, of this timber land is compacted for the most part into a belt of a mean width of 100 miles, running east and west along the entire Black Sea coast of Anatolia.

This section is best known for its coal and tobacco, but is rarely given thought in connection with its lumber wealth, for the reason that not more than 10 per cent of Turkey's timber has ever been exploited, and this in a very primitive fashion. The remaining timber follows, in general, the Taurus and Anti-Taurus ranges from Smyrna to the Syrian frontier.

### COMMERCIAL VARIETIES

The occurrence of the various kinds of trees in Turkey, many of which are suited to commercial exploitation, is estimated in the following proportions:

| | Per cent | | Per cent |
|---|---|---|---|
| Pine | 36.69 | Poplar | 1.30 |
| Oak (except valonia) | 13.72 | Olive | 1.21 |
| Hornbeam | 11.19 | Chestnut | 1.14 |
| Fir and cedar | 9.64 | Elm | 1.14 |
| Beech | 5.06 | Ash | .97 |
| Aquifolium (holly) | 3.67 | Valonia oak | .83 |
| Cistus | 2.04 | Plane tree | .79 |
| Juniper | 1.53 | Linden, cypress, alder, boxtree, birch, etc | 7.64 |
| Turpentine tree | 1.44 | | |

### SUBSIDIARY PRODUCTS

In addition to the main forest resources named above, the following classes of minor products deserve mention for their commercial utility.



Digitized by Google

1. Wood for special purposes, as barrel staves, agricultural implements, pack saddles, and vehicles.

2. Firewood (not of the cord variety, but in bundles of withes), resinous knots, and miscellaneous woods for charcoal.

3. Tree products and fruits, fungi, and other wild plants that are associated with the forests of the country, such as gum tragacanth, tar, resins, balsam, turpentine, wild ginger, gallnuts, soapwort, sumac, wild daffodil, madder root, mastic leaves, oak moss, walnut root, bark and fibers, pine and oak bark, linden blossoms, violet petals, laurel leaves, willow withes, wild thyme and its oil, mint, licorice root, mushrooms, chestnuts, boxwood leaves, carob beans, cypress cones, various vegetable dyes, holly berries and bark, and many others.

## FOREST CARE AND EXPLOITATION

The timber belt, like all of Turkey, is a pastoral country; there the Lazite shepherds burn down large tracts of valuable woodland to provide pasturage for the following year, and there the villagers burn oak, walnut, ash, and chestnut indiscriminately to heat their houses and cook their food. Fences are unknown, and the goats, on which the native chiefly depends for his food, are permitted to graze at will in their curiously thorough manner, wherever vegetation is found, thus effectively preventing reforestation by the close nipping of young growths.

### CONSERVATION

This waste and neglect is not due to any destructive policy or even indifference on the part of the Government. A law, expressly designed to conserve the woodlands of the country, was promulgated as early as 1870 and has been since frequently revised.

This law places all forests, whether on State, communal, or private property, under the control of the Ministry of Agriculture, provides for the appointment of inspectors and keepers to supervise the felling of trees, specifies the conditions under which timber may be taken by the Government, fixes the taxes payable by private individuals who are granted permits to cut wood, and ordains severe penalties for unauthorized depredations. It is an admirable law of Austrian origin, but has not arrested the progressive dissipation of the country's wooded wealth.

The havoc wrought by incendiarism, wastefulness, and decay has therefore not been mitigated by prevention, control, or replacement. The explanation lies in the inadequacy of water, railway, and road communications. To this may be added the basic reason underlying all others, namely, the apathy of the peasants who, not owning the land which sustains them, lack the incentive to safeguard the forests.

This pregnant source of destruction would probably disappear with the construction of adequate railways, opening the forest areas to penetration by both Government officials and other legitimate forestry interests. At present, penetration is confined to the immediate neighborhood of streams. Exportation is sporadic and not nearly commensurate with its possibilities.

Digitized by Google

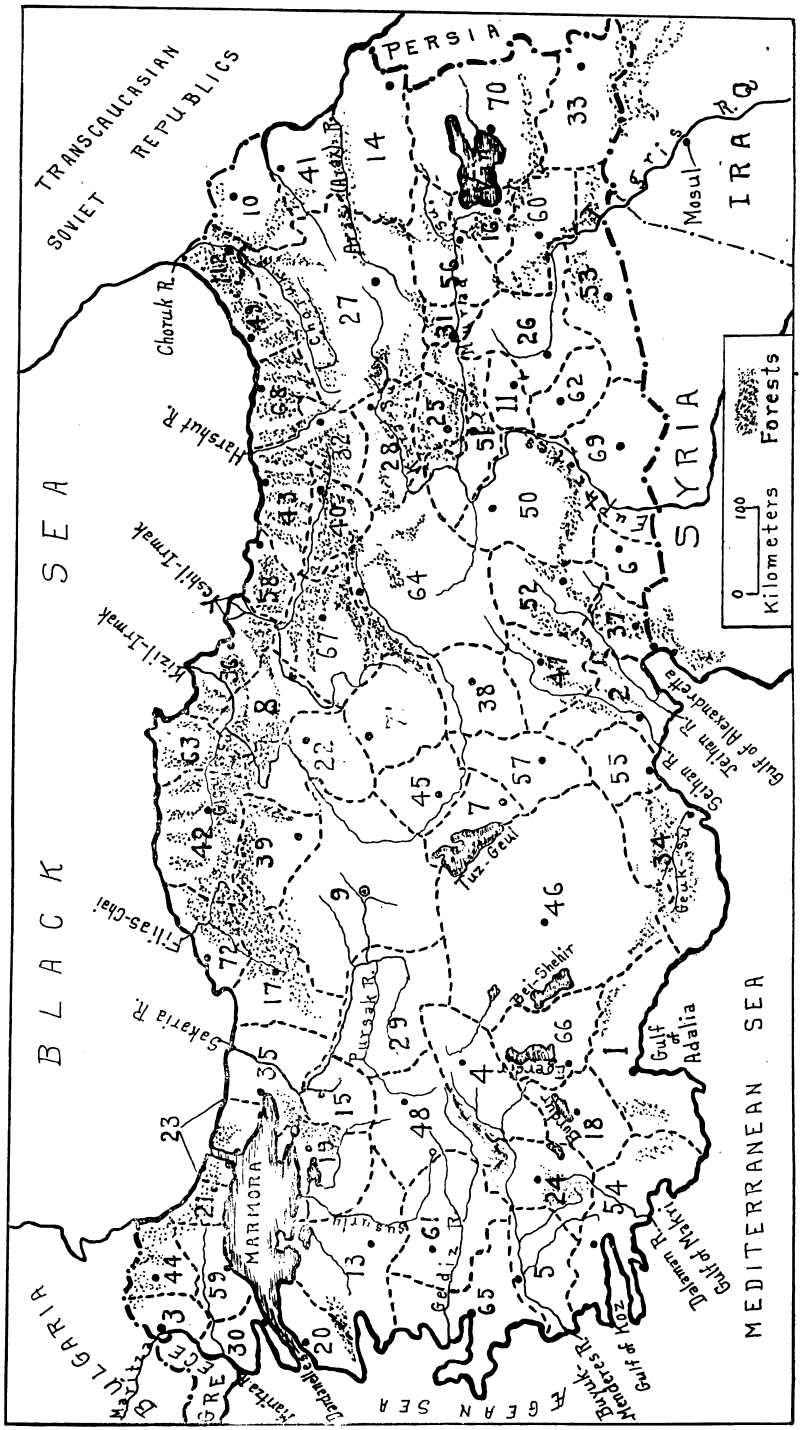


FIG. 7.—Map of forest regions and modern Vilayets in Turkey. (See key on opposite page.)

Digitized by Google

## FOREST SERVICE

State forests in Turkey have the protection of the Government to the extent of 1,750 foresters and 850 other technical employees. There are also several Government schools, providing instruction in forestry, which are gradually being enlarged and improved and which are supported from the revenue of lumber exported under Government control. The total revenue thus obtained averages $225,000, while the total expense of the national forest administration does not exceed $70,000 per year. There is, therefore, a considerable surplus, adequate to greatly improve the forestry service of the country. It is significant that the 1924–25 budget provides for five foreign forestry experts.

## EXPLOITATION, PAST AND POSSIBLE

### CONDITIONS AFFECTING OUTPUT

*Rivers.*—The river system of Turkey, as a whole, constitutes the determining factor in the direction and method of forest exploitation. It can safely be stated that wherever forests and streams are coexistent the lumbering industry thrives—in a crude and primitive manner, to be sure, but recognizable in the export figures. The exploited zones naturally follow the courses of the streams and do not exceed a day's journey (20 miles) in width.

The streams pertinent to this subject are: Tributary to the Black Sea, from east to west—the Harshut-Dereh, the Melet-Irmak, the Yeshil-Irmak and its affluent Kelkit-Irmak, the Kizil-Irmak (or Halys), the Devrikian-Irmak, the Filias-Chai, and the Sakaria-Irmak; on the southwestern Aegean slope—the Buyuk-Menderes

---

### KEY TO VILAYETS OF TURKEY, AS REORGANIZED IN 1923

The accompanying sketch map is merely a rough approximation as to boundaries. No survey has been made, and no exact delimitations are available.

1. Adalia.
2. Adana.
3. Adrianople.
4. Afion-Kara-Hissar.
5. Aidin.
6. Aintab.
7. Akserai.
8. Amasia.
9. Angora.
10. Ardahan.
11. Argana.
12. Artvin.
13. Balikisir.
14. Bayezid.
15. Bilejik.
16. Bitlis.
17. Bolu.
18. Burdur.
19. Brusa.
20. Chanak-Kalesi.
21. Chatalja.
22. Chorum.
23. Constantinople.
24. Denizli.
25. Dersim.
26. Diarbekir.
27. Erzerum.
28. Erzinjan.
29. Eski-Shehir.
30. Gallipoli.
31. Genj.
32. Gumush-Haneh.
33. Hakiari.
34. Itch-Il.
35. Izmid.
36. Janik.
37. Jebel-Bereket.
38. Kaisaria.
39. Kangri.
40. Kara-Hissar-Sharki.
41. Kars.
42. Kastamuni.
43. Kerasund.
44. Kirkler-Ili.
45. Kir-Shehir.
46. Konia.
47. Kozan.
48. Kutahia.
49. Lazistan.
50. Malatia.
51. Mamuret-ul-Aziz.
52. Marash.
53. Mardin.
54. Mentesheh.
55. Mersina.
56. Mush.
57. Nigdeh.
58. Ordu.
59. Rodosto.
60. Saerd.
61. Saruhan.
62. Severek.
63. Sinop.
64. Sivas.
65. Smyrna.
66. Sparta.
67. Tokat.
68. Trebizond.
69. Urfa.
70. Van.
71. Yozgad.
72. Zunguldak.

Digitized by Google

(Meander); on the Mediterranean slope, from west to east—the Ak-Su, the Geuk-Su, the Seihan-Irmak, and the Jeihan-Irmak.

*Water power.*—The mountain streams possess untold volumes of potential motive power, especially on the Black Sea coastal slopes and on the southern declivities of the Taurus range. Falls are numerous, and the river beds lend themselves to effective and inexpensive dam construction. Failure to utilize this power accounts for the limitation on systematic forest exploitation; lumbering, with very few exceptions, is still dependent on hand labor throughout.

*Labor.*—Labor is scant, inefficient, and poorly paid. Military conscription leaves the industry to the seminomadic Kurds, Lazes, and nondescript "Tahtajis" (plankmakers), most of whom either work the forests for their own profit or offer their inconstant services to the various operators who have undertaken lumbering either as a corollary to mining or as a separate industry.

### ANNUAL OUTPUT

Despite the lack of conservation and intelligent exploitation, preventing normal reforestation in Turkey, the postarmistice annual output of good building lumber, rough-hewn and hand-sawn, according to the report of the Department of Commerce and Agriculture, dated March, 1921, totaled from 327,000 to 392,400 cubic yards. This represented a felling of half a million trees and a value of $2,650,000. In addition, a little over 88,000 long tons of cordwood and 29,500 long tons of charcoal were produced. Moreover, important quantities of chestnut railroad ties were exported to Egypt.

### REGIONAL PRODUCTION AND RESOURCES

*Adrianople.*—Rejoined to Turkey by the treaty of Lausanne in 1923, this European Province contributes to the country 1,648 square miles of timber land, consisting mainly of oak, hornbeam, and resinous pine, scattered over the Vilayets of Adrianople, Kirkler-Ili, Gallipoli, Rodosto, and Chatalja.

*Constantinople.*—Though small, this region embraces both the European and the Asiatic forest-bearing territory in the Vilayet of Constantinople. The most important section is found in the Asiatic area—some 25 miles east of the city, and extending from Shileh on the Black Sea to Gebzeh on the Sea of Marmora, and particularly abundant in the neighborhood of the headwaters of the Riva.

The European portion of this region includes a part of the Belgrade Forest, much storied and sung in literature. At Derkos, in the northwestern part of the European Constantinople Province and close to the Black Sea coast, Bavarian capitalists have obtained a forest concession and are preparing to make railroad ties, in competition with Rumania.

*Izmid.*—The 1,300 square miles of densely covered State-owned forest land of the Vilayet of Izmid and parts of the Vilayets of Brusa and Bilejik, especially luxuriant at Kandra, Ada-Bazar, and Geuveh (northeast, east, and southeast of Izmid), might well be called jungle. Haphazard war-time felling has made disastrous inroads into the once exceptional forest wealth, leaving vast denuded areas, notably in the Sakaria River basin and in the vicinity of Mudania.

Digitized by Google

A section of the Ada-Bazar forests is reserved for the Ministry of Marine (this system dating back to the pre-war period of wood-burning steamships), but the active operation of the 12 wood yards ceased at the termination of the Great War.

Production, unscientific and irregular, amounts to some 111,000 long tons of firewood and 5,500 long tons of charcoal, most of which is absorbed by the city of Constantinople, besides some 50,000 walnut planks that were exported annually from Izmid. Transportation to Constantinople is conducted mainly by sea, small sailing craft serving as carriers.

The Geuveh district may be called the richest in point of variety, yielding minor quantities, with more or less regularity, of walnut, beech, lime, elm, oak, alder, pine, fir, cistus, chestnut, linden, plane tree, boxwood, and maple. The beech enjoys the distinction of being considered the best in Turkey, 400,000 staves being sent to market each year. The fir, however, is deemed less resistant than the European. Geuveh is also favored by its accessibility, the town being only 28 miles distant from Izmid by road and 39.4 miles by rail.

Aside from fuel wood, walnut, and beech, the total annual exports from the whole Province do not exceed $2,500 in value. On the whole, in the Vilayet of Izmid the country is too rugged, the waterways too sparse, the roads too few, and transportation facilities too primitive to permit of extensive forest exploitation.

*Brusa.*—This region, including the Vilayets of Balikisir, Eski-Shehir, Afion-Kara-Hissar, Kutahia, and parts of the Vilayets of Brusa and Bilejik, has also sustained severe war losses, the extent of which has not been estimated. The 1913 forest area covered 3,502 square miles, dominated by fir, pine, oak, elm, chestnut, beech, and hornbeam. Inaccessibility has proved the natural guardian of the surviving trees, both in war and in peace. Limited exploitation for local consumption has been undertaken along the east coast of Marmora at Gemlek and the south coast at Mihalitch. Exports are nil.

The forest of Karasi (present Balikisir Province) in this region has the reputation of being impenetrable. Wherever possible, however, old-fashioned sawmills have been erected, in which rough planks are made. Plane trees, willow, poplar, alder, and lime trees occur in sufficient quantities for domestic needs. It may be safely anticipated that, with the development of the railway, forestry in this quarter will become an important source of income to the State, as also to individuals.

By-products of the limited lumber industry are pine and oak bark for the tanneries, gallnuts, lichen, pitch, tar, sumac, jalap, and chestnuts. The city of Brusa, particularly, is quite famous for its chestnuts.

*Biga.*—In this region, extending over the Vilayet of Chanak-Kalesi and part of the Vilayet of Balikisir, oak is the primary forest product, many varieties springing up to replace the regions denuded of pine. Valonia was the leading export item of the region until 1911, when the ravages of a caterpiller became so injurious as to deteriorate the quality of the valonia and reduce its price; the oak trees were then cut down for fuel.

59573—26——9

Digitized by Google

The forest of Eshelek (36 kilometers from mouth of Biga Chai, or its affluent, the Kara-Atli Chai), covering 196 square miles, has been systematically exploited under the direction of the School of Forestry near Constantinople. Beeches, limes, elms, and plane trees abound, and there are also extensive valuable plantations of valonia oaks. Before the war, large quantities of gallnuts were exported. Better use of timber wealth has been made in this Province than in most parts of Anatolia, but except near Eshelek no serious attempt has been made to apply modern methods.

The lumber industry has been encouraged by the occurrence of numerous streams, which carry the logs and plank rafts to Kum-Kaleh (at mouth of the Dardanelles) and to Kara-Biga (just west of mouth of Biga-Chai), whence the lumber is exported in small sailing vessels. Wherever the pine has been cut away, dwarf oaks spring up, from which charcoal is produced.

*Aidin.*—The Aidin region, comprising the Vilayets of Smyrna, Aidin, Saruhan, Mentesheh, and Denizli, with 3,586 square miles of forest in 1913, has had those forests denuded nearly two-thirds by the devastations of the Turko-Greek War during 1919–1922. There now is left only 1,239 square miles of forested territory, distributed among the four tree-bearing Vilayets of the region, as follows: Smyrna, 720; Denizli, 252; Aidin, 169; and Saruhan, 98. Pine and oak predominate, the Aidin district carrying about 70 per cent fir and 30 per cent oak. The pine forests of Denizli, of Chal-Dagh (between the Meander and the Banaz-Chai, northeast of Denizli), of the Davas plateau (northeast of Mugla, at headwaters of the Ak-Chai), of Mugla (northeast of Koz Gulf), and of Keuijekez (Keujes, Keuidjez, Kodjek, Koijiges, Kiöidjik, Kiochek, Kouyoudjik, Göjek, etc., midway between Mugla and Makri) have a certain fame for their production of so-called "Venetian turpentine."

The Makri neighborhood is rich in cedar that has scarcely been touched. Exploitation, though comparatively advanced in this Province, must be termed unimportant. Ownership is vested almost exclusively in the State. The work is generally directed by miscellaneous persons who know little or nothing of scientific forestry. A few water-power sawmills with gang saws have been erected, and in the town of Makri there is a small steam sawmill. Most of the trees felled, however, are sawed on the spot by hand.

In the district of Davas the lumbering industry appears more brisk, the logs being floated down the Ak-Chai to the Smyrna-Aidin railroad. In general, the forests of this Province suffer the usual haphazard treatment. All told, some 19,000 cubic yards of lumber are produced annually.

In Aidin the valonia-producing oak is plentiful, the "beards" from the acorn constituting one of the principal exports through the port of Smyrna.

*Adana.*—This region embraces the present Vilayets of Adana, Mersina, Kozan, Jebel-Bereket, Itch-Il, and Adalia. The forests are almost entirely State-owned and perhaps for this reason have suffered the severest losses, not only from rampant diseases peculiar to the predominating pine, but from the wholesale and indiscriminate ravages of the nomadic "Tahtajis" (plank makers), whose clandestine activities have remained unchecked in spite of laws made

Digitized by Google

expressly to restrain them and the attempts of officials to enforce these laws.

For a number of years these tribes have ruthlessly pursued their illicit occupation, completely denuding vast stretches of the richest woodlands of the district. With the aid of the rivers Seihan and Jeihan and their numerous tributaries, the "Tahtajis" have succeeded in stripping wide swaths of verdant forest, leaving scarcely a sapling behind for future generations. The felled trees are sawn into planks on the spot, lashed into rafts, and floated down to Adana and the sea.

Exportation is very active, increasing year by year. Owing to the operations of the "Tahtajis," official figures fail to show the total output, and the statistics are incomplete in themselves. However, these official figures state that the districts of Adana and Itch-Il produced $77,325 worth of lumber in the two years, 1909–1910, the average yearly output of Itch-Il alone being estimated at 26,160 cubic yards. The Adalia district exports 65,400 cubic yards annually. Fuel wood is the most important forest by-products of this Province and is prepared in about equal quantities for export and for local use in the form of cordwood and charcoal.

Forest by-products of the general Adana region, possessing commercial importance as exports, are tar, pitch, pine bark, valonia, and carob beans. Building lumber, roughly prepared but of good quality, is exported to Egypt and Syria. Chestnut railroad ties are cut on the coastward slopes of the Taurus Mountains, particularly in the Karaman section midway between Konia and Adana. The lumbering activity in this region, owing to the prevailing inadequacy of transportation facilities, notably of railways, roads, and motor vehicles, is confined to the immediate neighborhood of the rivers, particularly the Seihan and the Jeihan with their numerous tributaries, which are used to float the rough-hewn ties down to the coast.

*Konia.*—With a well-worked forest area of 1,854 square miles, lying within the Vilayets of Konia, Nigdeh, Sparta, and Burdur, the Konia region with its railway and roads is one of Turkey's more promising forest fields. It is endowed with valuable oak and walnut, and possesses the relatively greatest quantity of the rare Turkish boxwood.

*Angora.*—The forest area of this region is estimated at 852 square miles in a total area comprising the Vilayets of Angora, Kir-Shehir, Yozgad, Kaisaria, and part of the Vilayet of Chorum. The trees for many years have been cut unsystematically for local use, chiefly for charcoal. The more important remaining wooded regions include the forest of Yaban-Abad (Shorba) 45 kilometers north of the city of Angora; the forests of Ak-Dagh-Maaden, 105 kilometers east-southeast of Yozgad; of Sungurlu, 55 kilometers northwest of Yozgad; and of the Chichek-Dagh in the Province of Kir-Shehir, 40 kilometers southwest of Yozgad. Yaban-Abad (Shorba) and Ak-Dagh-Maaden abound in building timber, and firewood is taken wherever found. Large quantities of oak have survived the denuding process of many years; the remainder consists largely of fir, poplar, juniper, and beech.

*Sivas.*—This region includes the Vilayets of Sivas, Tokat, Amasia, Kara-Hissar-Sharki, and part of the Vilayet of Chorum. The best forests appear on the mountains, more especially in the districts of

Digitized by Google

Tokat and Amasia. The latter includes the well-known forests of Ladik (30 kilometers north of Amasia), of Tavshan-Dagh (mountain range extending east-west, from 30 to 90 kilometers northwest of Amasia), of Ak-Dagh (mountains 15 kilometers northeast of Amasia), and of Zeitun-Dagh (mountains just north of western end of Tavshan-Dagh).

At Lijesi (immediately north of city of Kara-Hissar-Sharki) the most notable destruction of trees has taken place at the hands of the Circassian villagers, on the pretext of clearing fields for agriculture. But as these people are pastoral, the denudation may probably be ascribed to grazing needs. Wholesale destruction by fire dates back to 1888, when vast sections of the region's forests were wiped out by an unopposed conflagration that lasted for many weeks until it burned itself out.

*Kastamuni.*—The Kastamuni forest region, which extends along the Black Sea Vilayets of Kastamuni, Sinop, Kangri, Bolu, Zunguldak, and parts of Chorum and Janik, is the richest in timber, having 5,079 square miles of wooded territory, or about 20 per cent of the total regional area. The trees are chiefly oak, beech, chestnut, larch, elm, lime, plane, and black pine.

They are especially dense in the Vilayet of Bolu, popularly and appropriately known as "Agatch-Deniz" (the sea of trees). All the mountains are thickly covered, particualarly the Ala-Dagh on the southern border of this Province. In the absence of roads, the timber from the Bolu region is floated down the Filias-Chai to its mouth on the Black Sea, 25 kilometers northeast of Zunguldak. A recent authorization for forest concession in the districts of Kastamuni and Bolu involves the construction of a narrow-gauge railway between Kara-Dereh and Eregli (see "Industrial Railways" in the section "Transportation"). It is estimated that this line, when completed, will bring to market every year 90,000 cubic meters of lumber in excess of the 60,000 required for the Eregli mines.

At Tatai (Dadai), 35 kilometers northwest of Kastamuni, tar is extracted from fir trees, of which 362,500 were felled in a normal year under State control.

The port of Sinop is the Black Sea outlet for most of the exports of the tributary region. There, sailing vessels are constructed from lumber prepared at the Elek-Dagh plateau (80 kilometers southwest of Sinop). Pine trees abound and are reserved for masts. Before the war, 745,000 trees were felled annually in the Sinop Vilayet.

Large tracts of virgin forest exist in the environs of Ayanjik (Black Sea coast 45 kilometers west of Sinop); also in the general region of the Kizil Irmak and its western affluent, the Geuk-Irmak, particularly in the environs of Suyuk (Souk)-Dagh (60 kilometers south of Sinop), of Boyabad (30 kilometers west of Suyuk-Dagh and 75 kilometers south-southwest of Sinop), of Elek-Dagh (25 kilometers west of Boyabad and 80 kilometers southwest of Sinop), of Karagatch-Dagh (within the sharp western elbow of the Kizil-Irmak), and of Chatal-Hobak-Dagh (55 kilometers southwest of Karagatch-Dagh). These forests remain unexploited through lack of communication with the coast. Lumbering, therefore, is limited to the rivers of the region, and is carried on by hand, only one water-driven sawmill existing (at Elek-Dagh). Exploitation centers along the lower course of the Kizil-Irmak, particularly near Bafra.

Digitized by Google

*Trebizond.*—This is the second richest forest region of Turkey. It covers the Vilayets of Trebizond, Lazistan, Artvin, Kerasund, Gumush-Haneh, Ordu, and part of Janik (formerly Sanjak of Samsun). It is also the least exploited and least known. Varying estimates average a total of 1,404,300 acres, of which 330,110 acres appear situated in the present Vilayet of Trebizond, 269,000 in the Vilayet of Lazistan, 225,000 in Gumush-Haneh, 219,030 in Samsun (present Janik), 206,950 in the Vilayet of Kerasund, and 154,210 in the kaza of Tireboli. Particularly fine are the forests of Trebizond, Kerasund, and Samsun, on whose mountain slopes oak, beech, pine, fir, birch, chestnut, boxwood, and cornel abound. Spruce dominates with 40 per cent, and pine claims 10 per cent.

The forests of the Trebizond region may be regarded as a continuation of those of the Kastamuni region, but are much more scattering and interspersed with numerous cleared areas. These divide the total forest area into 690 natural clumps or "lots," 684 of which belong to the State and the remainder to private owners. The cleared areas do not indicate industrial activity, but destruction, haphazard cutting for domestic needs, incendiarism, and diseases peculiar to the fir family.

Production in the fiscal year 1906–07, according to the Ministry of Commerce and Agriculture, amounted to 55,306 cubic yards; and in 1908–09 to 13,150 cubic yards. On the whole, production has steadily diminished since 1909, after which year the operations along the seaboard extended too far inland for easy transportation to the sea. No appreciable attempt has been made to overcome the lack of stream and road communications.

*Erzerum.*—This general region, which includes the Vilayets of Erzerum, Erzinjan, Ardahan, Kars, and Bayezid, and part of the Vilayet of Dersim, is almost devoid of trees except in the thinly populated areas. The western portion of the region seems slightly better off than the eastern.

Bayezid and Erzerum are practically treeless, except for a few poplar and willow groves carefully protected for building purposes. The districts of Terjan and Pasin (western and northeastern Erzerum) contain scattered thickets of scrubwood used for fuel. Erzerum itself draws its supply of oak from the Kop and Masat mountain ranges (about 80 kilometers west-northwest of Erzerum city) and its deal from the districts of Tortum and Nariman in the northeast. The pine woods of Ispir (eastern Erzinjan), Kiskin (northern Erzerum), and Kigi (southwestern Erzerum) are rapidly dwindling. Erzinjan in the past obtained good supplies from the mountains of Pelumer (50 kilometers southeast of Erzinjan) and of Refahieh (Rufaye, a former kaza, 50 kilometers northwest of Erzinjan), where 13 rather extensive forests exist.

On the whole, it may be said that practically no forests are left, with the exception of those in Kigi and Dersim (about 115 kilometers southwest of Erzerum). Reforestation has been feebly attempted at Kigi and near Kara-Kilisseh and Alashgerd (Toprak-Kaleh) in the Vilayet of Bayezid, but without notable success.

The best forests are those of Shog and Altun-Tash, both 85 kilometers west of Erzerum and covering on area of about 15 square miles (Shog on the south side of the Kara-Su and Altun-Tash on the north side at the foot of Kop Mountains). Larger

Digitized by Google

forests, 200 square miles in extent, exist in Nariman and Tortum districts near the Russian frontier (about 85 kilometers northeast of Erzerum), exploited for local firewood and building needs. As in Kiskin, so in the surroundings of Terjan southwest of Erzerum, splendid oak groves are found which, because of the ruggedness of the country and the absence of natural waterways, have entirely escaped exploitation.

*Harput.*—The Vilayets of Malatia, Mamuret-al-Aziz, and Dersim, and part of the Vilayet of Argana surrounding the mountain city of Harput are sparsely dotted with poplar and oak. The once rich forests of Keban (along Euphrates, west of Harput), Malatia, and Harput itself have been well-nigh obliterated, principally in connection with the mining operations at Keban-Maaden. Similarly, Palu (65 kilometers east of Harput) is the center of a barren waste, denuded of its forest wealth through years of attrition by the natives, in thoughtless disregard of the existing laws. Lumber has never been exported, and the remaining trees are rapidly disappearing without any visible prospect of a new growth for future needs.

*Diarbekir.*—Covering the Vilayets of Diarbekir, Severek, Mardin, and a part of the Vilayet of Argana, this region possesses a total forest area not exceeding 500 square miles. The district in general is rocky, mountainous, and barren; most of the woodlands lie northeast of Argana-Maaden, famous for its copper mines. Little remains except stunted scrub oak, suitable only for fuel, and clumps of poplar, preserved where possible for the simple building requirements of the inhabitants.

*Bitlis.*—This region consists of the Vilayets of Bitlis, Mush, Genj, and Saerd. Its only wooded areas center about the plains of Bulanik (adjoining Mush on the northeast) and of Mush; also north of Bitlis and at the headwaters of the Avzut-Dereh (30 kilometers west-northwest of Bitlis); but they scarcely merit consideration. The wood is laboriously carried to the cities and villages from increasingly greater distances, and it seems to be only a matter of time when the limited supplies will be entirely exhausted.

*Van.*—The Vilayets of Van and Hakiari constitute this region. Its only trees of value, elm and ash, are limited to the northern part of the district. Ash is used for vehicles. Firewood is the leading product and becomes steadily more difficult to transport to the centers of consumption. The commercial forest potentialities of this remote district are essentially nonexistent.

## CONCLUSIONS

In this rapid survey no attempt has been made to cover the region of Mosul, the sovereignty of which is in dispute. The information offered has been necessarily somewhat fragmentary because of the lack of adequate official statistics. It has also been necessarily poorly balanced, because relatively satisfactory data can be had only in the case of forest areas whose accessibility has attracted capitalistic development. It is believed, however, that after making all due allowance for inaccuracy, it remains established that Turkey possesses a forest wealth of great volume and great variety, which is capable of profitable exploitation and of increase through the application of scientific forestry methods.

Digitized by Google

## MINERALS AND MINING

In spite of the legendary and historical fame of Asia Minor for its reputed mineral wealth, there is very little accurate knowledge about the actual extent of its deposits. Crœsus is said to have waxed rich in Ionian gold, buying it with Athenian silver in the busy market of Ephesus (Aegean coast near Scala Nova) and selling it in Greece at an immense profit. Anatolian gold enriched also Priam of Troy. This is the country of the mythical Golden Fleece, and the habitat of the ancient Chalybes who are held by tradition to have first developed metallurgy. Silver working is a time-honored industry throughout the country, and copper, iron, and manganese have played their part in the manufacture of weapons down through all the belligerent history of the descendants of Osman.

Under Greek and Roman influence as late as the eleventh century, Asia Minor figured prominently in metallurgy; but with the decline of the Byzantine Empire and the rise of Ottoman power, mining enterprise subsided. It was not revived until early in the nineteenth century and then only by foreigners, thus beginning the practice, continued to the present day, of farming out the natural resources of the country in the form of concessions.

Coal, chrome, silver, copper, and lead were extracted with comparative regularity, albeit unscientifically, until modern systems of exploitation were inaugurated to develop the rich coal fields of Zunguldak, the silver and lead mines of Balia-Maaden, and the copper deposits of Argana. With these outstanding exceptions, mining in Turkey has been most primitive and irregular, and the total production would seem almost negligible, particularly in face of the belief, continually gaining ground, that the mineral wealth of the country is well-nigh inexhaustible.

## KNOWN RESOURCES AND THEIR DISTRIBUTION

In the north there are the great coal beds of the Eregli basin extending to Kidros, as well as in other parts of the Black Sea littoral, where development and prospecting have not yet disclosed the full extent of Turkey's carboniferous wealth. Farther east and south, just between Diarbekir and Harput, lie the world-famous but comparatively untouched seams of copper—the Argana deposits, where the rocky beds of the mountain streams are green with the oxidized metal, and where the shoes of the pack animals fording these streams become galvanized with pure copper.

In west-central Anatolia, around the little city of Eski-Shehir, lies the world's greatest source of meerschaum. The chrome and the emery of the Smyrna district have been a source of revenue for the last half century. Iron, almost ignored, is everywhere.



Digitized by Google

Lead is found throughout northern Anatolia, and nearly always richly impregnated with silver. Manganese is well distributed in the northern and western Provinces, zinc in Izmid and Trebizond. Borax is exported with great regularity from Sultan-Shehir and Demir-Kapu and from the Firt district (just south of Susurlu) in the Brusa area, as well as from the little island of Halki (one of Princes Islands) in the Marmora.

Kastamuni and Smyrna have produced pure mercury to a combined extent of about 4,500 flasks annually, Smyrna alone contributing 3,000 flasks. Silver ranks next to iron in ubiquity, having been found throughout the whole western half of the Turkish peninsula and on the island of Imbros. The ancients mined gold at Astyra, a village in the Province of Biga about 20 kilometers southeast of Chanak, and their mines still give forth some 45 kilos yearly of this precious metal.

The minerals and smelted ores that predominated in the various Vilayets and sanjaks, as they were named and delimited prior to 1923, are listed below.

Vilayets:
- Constantinople—Lignite, metallic lead, and iron.
- Adrianople—Lignite.
- Smyrna—Sulphur, lignite, arsenic, antimony, emery, chrome, manganese, lead ore, silver ore, mercury.
- Adana—Lignite, chrome, iron, lead ore, zinc ore.
- Angora—Lead ore, silver ore.
- Brusa—Meerschaum, opal, emery, chrome.
- Sivas—Lignite.
- Trebizond—Copper, copper and zinc, zinc, mineral waters.
- Konia—Sulphur, lead, zinc, litharge, silver, gold, mercury.
- Diarbekir—Lead, silver, black copper, refined copper.
- Erzerum—Lignite, copper, copper of cupriferous waters.

Sanjaks:
- Karasi—Lignite, realgar, lead, silver, blende, pandermite.
- Izmid—Lignite, lead ore, silver ore, zinc ore, copper.
- Bolu—Coal, coal dust, manganese.
- Chatalja—Lignite.
- Dardanelles—Lignite.
- Kutahia—Manganese, lead, silver, zinc, lignite, chrome.

## EXPLOITATION, PAST AND POTENTIAL

### CAUSES OF ARRESTED DEVELOPMENT

The arrested development of the mining industry in Turkey may be attributed to the following circumstances:

1. Inadequacy of inland transportation: The existing railways reach only a limited portion of the known deposits; roads are poor and often entirely lacking where most required. In the absence of motor transportation, such beasts of burden as camels, horses, and burros—obviously impracticable for ores and metals—are the carriers of all merchandise.

2. Unequal distribution of forests, upon which mining depends for fuel, for gallery struts and shoring, and for general construction work.

3. A persistent shortage of labor, resulting mainly from military conscription. This is the constant problem facing the operators of mines, and it effectively precludes the feasibility of fresh mining

Digitized by Google

30112101026638—001
FLD00100030

++ = boracite. ▬ = coal. △△ = chrome. ## = copper. //// = emery. □□ = lead. ◪◪ = lead-silver. ✱✱ = manganese. |||| = meerschaum. ▽▽ = mercury.

FIG. 8.—MAP OF RAILROADS AND MINERAL DEPOSITS IN TURKEY. PROJECTED RAILWAY ROUTES NOT DEFINITELY ASCERTAINABLE ARE OMITTED FROM THE MAP; AVAILABLE INFORMATION IS EMBODIED IN THE TEXT



Digitized by Google

Digitized by Google

enterprise. Even the available man power is casual, devoting only an average of 100 days per year to mining; the remainder of its time is required for agriculture.

4. Lack of capital.

5. Administrative obstacles to obtaining a concession or to exploiting it, especially during the period prior to the reestablishment of the constitutional régime (1908).

## MINING LEGISLATION

Mining was severely restricted by the law of 1861, but eight years later numerous reforms, based on the French law of 1810, were adopted. The first of these revisions granted the right of priority to the discoverer. By this revised law 5 per cent of the output goes to the Government, and the limit of validity of concessions is usually extended to 99 years. Concessions for chrome, emery, boracite, and meerschaum are restricted to 60 years.

This revised law was made even more liberal in 1887; but in 1905, when numerous restrictions were added, a tendency was shown to render it difficult to secure and to maintain concessions. A study of the law, particularly with an eye to the limitations of 1905, appears to reveal also a tendency to exclude foreign participation. However, these restrictions have been ineffectual for the most part, as they have been easily circumvented by the subterfuge of an Ottoman pseudoproprietor.

The following synopsis of Turkish mining legislation is borrowed from an official British war publication:

Mines and quarries are treated separately under Turkish law. All matters however. relating to such undertakings are within the competence of the Ministry of Agriculture, Mines, and Forests at Constantinople [now Angora]. There is a department of this ministry in each Vilayet. The most recent mining law is dated March 26, 1906. It applies equally to Ottoman subjects and to foreigners.

The law makes a distinction between mines and minerals, defining mines as underground deposits, and minerals as metals or materials which appear in an irregular manner on the surface, such as iron ore, pyritic earth, scoriæ, peat, etc. The adoption of certain scientific methods of working is insisted on in the case of mines, but otherwise the two classes are treated alike.

These mines or minerals can only be possessed and worked regularly by virtue of an imperial firman or concession. The concession is transferable by sale, cession, or inheritance, and the term is from 40 to 99 years. The law precludes the holding of mines by foreign companies, but this restriction can easily be circumvented.

For the purpose of prospecting, a permit is necessary. Any person discovering a mine can make a formal application to the local department of the Ministry of Mines. The application is registered and, if no objection is raised, a permit is granted in due course. The permit fixes the extent of the district within which it is valid, and the nature of the mine or metal sought for. It is transferable by sale, cession, or inheritance, but the formal transfer must be made through the Ministry of Mines. Under the prospecting permit, a mine may be developed and worked, and samples exported in a limited quantity of its production.

The grant of a prospecting permit should be followed within a year by an application for the concession of the mine under imperial firman, together with a map on a scale of 1 to 1,500. The application is registered, and an announcement is made in the official gazette or local paper, giving particulars of the concession sought. If no objection is raised, the application is granted within six months by the Ministry of Mines, and referred to the Council of State; the Council of Ministers should issue the imperial firman within 12 months.



Digitized by Google

The holder of the concession must work the mine according to the methods of scientific mining engineering, and must appoint a responsible representative with whom the Ministry of Mines can communicate. Work must be begun within two years from the date of the firman, otherwise the ministry may give notice that unless work is begun within six months the concession may be canceled.

Two kinds of taxes are levied. One (redevance fixe) is a fixed tax on the surface area of the concession, at the rate of 10 piasters yearly for each jerib (10,000 square meters, or 2.47 acres). The second (redevance proportionnelle) is a royalty on the material extracted. It varies from 1 to 5 per cent on materials worked from shafts and galleries and found in veins, and from 10 to 20 per cent on other materials. In assessing the tax, the cost of working and transport abroad is deducted from the value of the output. If the concession is on private or "vakuf" property, 80 per cent of the royalty goes to the owner of the "vakuf". ["Vakuf" is real property left by individuals to the Ministry of Pious Foundations—recently abolished.]

The law works fairly well and, once a concession is obtained, little trouble is encountered. Before 1906 the issue of the firman was often delayed on various pretexts, but under the present law the representatives of foreign governments are able, after a certain term, to press the Ottoman Government for the grant of the concession.

In order to work a quarry, it is necessary to obtain a prospecting permit, as is the case of a mine. The permit, however, gives full powers to develop the quarry, and no concession by imperial firman is necessary. Permits for quarries run for a period not exceeding 25 years.

[Under law No. 608, passed by the National Assembly on April 12, 1925, and published two days later, the following regulations are made effective:

1. The State takes over all newly discovered mines and those that have not been worked since their discovery for a period of 15 years reckoned from April 14, 1925; all abandoned mines; and all mines for which the concession has been canceled.
2. In the case of the Eregli coal mines (already under State operation), the concessionaires must provide a resident manager at the mines, authorized to represent them in communications with the Turkish Government.
3. All mining officials and workmen must be Turkish subjects, except where technically equipped Turks are not available, in which case an outside specialist may be engaged for the period necessary to train a Turkish understudy to carry on the work (a proviso that is common to all industrial enterprises under the Turkish Republic).
4. All stone quarries of Turkey are ceded to their particular Vilayets for administration, except those for magnesium, cement, porphyry, the potter's clay of Mihalitch (8 kilometers west of Lake Abulyond), and the stone of the two Fochas (Eskije-Focha, or Old Fokia, on the site of ancient Phocæa; and Yenije-Focha, or New Fokia, 10 kilometers northeast of the old—both on the peninsula at east side of Gulf of Smyrna).—*Editor.*]

## RESERVATIONS AND CONCESSIONS

The following deposits are reserved for exploitation for the account of the State: (*a*) The copper of Argana; (*b*) the lead of Bulgar-Dagh (Taurus range between Adana and Konia); (*c*) the lead of Gumush-Haji-Keui (20 kilometers west of Marsivan); (*d*) the meerschaum of Eski-Shehir (southeast of Brusa); and (*e*) the potters' clay of Mihalitch (west of Lake Abulyond). There is also a State-owned metallurgical plant at Tokat, in the Province of the same name; but all abandoned foundries in that Vilayet were ceded to their local municipalities by law No. 144.

Mining concessions granted not later than 1922 were distributed over the Vilayets and sanjaks, as then named and delimited, in the following numerical proportions:

Digitized by Google

| Region | Total mining concessions | State mines |
|---|---|---|
| Bolu, sanjak | 415 | 5 |
| Smyrna, Vilayet | 278 | 60 |
| Brusa, Vilayet | 97 | 39 |
| Trebizond, Vilayet | 83 | 24 |
| Karasi, sanjak | 80 | 24 |
| Mentesheh, sanjak | 65 | 13 |
| Adana, Vilayet | 49 | 7 |
| Izmid, sanjak | 43 | 7 |
| Adrianople, Vilayet | 43 | 4 |
| Konia, Vilayet | 33 | 15 |
| Dardanelles, sanjak | 32 | 14 |
| Kastamuni, Vilayet | 30 | 8 |
| Sivas, Vilayet | 23 | 12 |
| Angora, Vilayet | 20 | 4 |
| Erzerum, Vilayet | 13 | 7 |
| Constantinople, Vilayet | 13 | 7 |
| Diarbekir, Vilayet | 11 | 7 |
| Samsun, sanjak | 7 | 1 |
| Mosul,[1] Vilayet | 5 | 2 |
| Harput, Vilayet | 3 | 3 |
| Chatalja, sanjak | 3 | 1 |
| Van, Vilayet | 2 | 1 |
| Bitlis, Vilayet | 1 | 1 |

[1] The allocation of the Vilayet of Mosul hinges on the decision of the commission chosen to determine the boundary line between Turkey and Iraq.

NOTE.—In the main, the name of each region is the same as that of its principal city. The same names are perpetuated in the 1923 redivision of Provinces, except that Karasi has been named Balikisir, and Dardanelles has become Chanak-Kalesi.

A brief survey of each mineral meriting special mention is given below.

## COAL

Carboniferous indications are profuse as both coal and lignite, particularly in the western projection of Anatolia; but exploitation, except for local use, is confined to the deposits of the Eregli (Heraclea) basin on the Black Sea coast. The available data concerning the occurrence and production of coal in Anatolia and former Armenia are summarized in the following pages, under the characteristic regions.

### EREGLI BASIN

*Occurrence.*—By far the most important and best developed outcroppings appear in the Vilayet of Zunguldak, in a 90-mile strip close to the Black Sea coast, extending from Kiose-Agzi (about 5 kilometers above Eregli) to Jidda (Djidda) and embracing the greater part of the Eregli Basin. The conformation of the Eregli outcroppings falls into three natural divisions: (*a*) The beds of Alaja-Agzi (best typified at that village, 5 kilometers south of Zunguldak), including 16 seams of a total thickness of 54 feet forming the lowest stratum; (*b*) the Kozlu (Cozlou) beds best typified at that village, 5 kilometers southwest of Zunguldak), with 26 seams of a total thickness of 158 feet; and (*c*) the Karadon (Caradon) beds (about 10 kilometers northeast of Zunguldak), with 8 seams.

*Quality.*—The quality of Eregli coal is sufficiently high for most purposes, comparing favorably, when properly picked and washed, with any other bituminous coal in the world except Cardiff, to which it is inferior in calorific value. The best Eregli has a 40 per cent content of combustible gases and yields only 7 to 11 per cent ash.

Digitized by Google

Unfortunately, most of the coal exported from the basin yields upward of 25 per cent ash, owing to the admixture of inferior grades to increase quantity output. Comparative quality is well illustrated by pre-war prices; Cardiff coal, for example, sold c. i. f. Constantinople for 19 to 23 shillings, Newcastle for 16 to 19 shillings, and the best Eregli for 18 to 22½ shillings, thus rating 12 to 18 per cent higher than Newcastle and only 5 per cent lower than the best Cardiff.

*Mining operations.*—Desultory mining began here as early as 1829, but was not systemtically undertaken until 1869 when a 50-year concession was granted to the French Société Ottomane des Mines d'Heraclée (Eregli). This company began by constructing modern port facilities at Zunguldak, including a 1,000-foot breakwater, three docks with loading cranes, a 15,000-candlepower petroleum lighting system for night work, etc., providing for an original production capacity of 3,000 tons per diem, which was never reached. All this equipment, for the most part, has fallen into disuse as the result of war-time depredation and lack of labor after the war. The 400 mines of the basin were connected with the port by means of a 10-mile network of light railway, a 3-mile aerial cable, and a 2½-mile tunnel. Zunguldak itself was equipped with 100 coke ovens, a briquette factory, and washing and sifting installations. Mining operations have been taken over by the State, but with little restoration thus far, and with efforts to force industrial consumption of Turkish coal instead of imported coal.

*Production, past and potential.*—The war reduced the industry to a simple scale, the post-war production averaging 440,000 tons per annum, against a pre-war yearly average of 800,000 tons. The maximum was reached in 1911 at 904,000 tons. The average annual production from 1884 to 1902 was 373,000 tons, while that from 1902 to 1921 was 569,000 tons. The French concessionaire company is credited with fully two-thirds of the total output of the basin and half of the total production of Turkey. About one-half of the Eregli coal is loaded on ships' bunkers at Zunguldak, and the rest is sent to Constantinople for domestic use, providing 70 per cent of that city's requirements.

In all, over 15,000,000 tons of coal have been taken from the Eregli beds. This is less than 1 per cent of the total available coal of the region, conservatively estimated at 1,500,000,000 to 2,000,000,000 tons, with additional indications being persistently reported by the natives considerably farther inland. The deposits include lignite and bituminous coal, and the existence of anthracite is strongly suspected. These circumstances, combined with easy access to the sea and the proposed railroad to Angora, make this basin where forests are likewise abundant one of the most promising industrial sites in the world.

*Labor.*—Production methods have reverted to simple hand manipulation throughout, and labor is limited to the availability of Kurds, Lazes, and inhabitants of neighboring villages, who are unsuited to the work and can not give more than one-third of the year to mining. They are, moreover, underfed and poorly paid. The output of Eregli coal per man in 1914 was 1,491 tons; in 1919 it had fallen to 1,257 tons, and in 1920 to 1,029 tons.

Digitized by Google

### ERZERUM

After the all-important Eregli deposits, those of the Erzerum region farther east rank next. Some 12,000,000 tons of bituminous coal, interspersed with lignite, are said to lie in the basin of the Olti-Su and the Kanli-Su, from 95 to 120 kilometers northeast of Erzerum.

Exploitation has been solely for military uses, 50,000 tons having been extracted by the Turks and Germans in 1915, and later 66,000 tons mined for the railways during the Russian occupation of the region. The mountainous configuration and want of communications render this quarter difficult of access, and no other mining has been reported.

A very superior quality of coal "shining like black diamonds" is reported at Kukurtlu, about 75 kilometers west of Erzerum; it is exploited only for the use of the natives. Other mines of more or less richness are reported elsewhere in the same "kaza" (county).

### LAKE VAN REGION

The district between Lake Van and the Persian frontier is claimed to be particularly rich in coal, although very little exploration and no development has been made. Southeast of this lake there are many deposits of minor importance, centering at Bash-Kaleh in the Vilayet of Hakiari, about 80 kilometers southeast of Van. On the west side of Lake Van, in the mountains west of the Mush plain, bituminous coal has been reported, and in the southeastern (former Eiru) kaza of the Vilayet of Saerd a hard variety of coal resembling anthracite is said to be abundant.

### WESTERN ANATOLIA

At the northwestern limits of Anatolia is Lapsaki on the Dardanelles, with important but untouched deposits of bituminous coal. Around the village of Manjilik, about 43 kilometers southeast of Biga, are a number of small mines producing for the locality only, particularly for the Balia-Maaden lead mines; but prospecting goes on with considerable zeal. Coal is mined also at Geuveh (about 50 kilometers east of Lake Iznik), for the spinning industry of Bilejik, Keuplu, and Sugud, farther south.

In the Smyrna region, a number of mines are worked near Soma for its factories and for those of Bergama farther west. Also, at Sokia (35 kilometers southwest of Aidin) and at Nazilli (45 kilometers east of Aidin), in the Meander (Buyuk-Menderes) Valley, sundry pits are crudely but regularly operated by the natives for local use only. At Makri (southwestern coast, on Gulf of Makri) a mine yields good coal for local use.

### OTHER REGIONS

Near Konia a few thousand tons of coal are extracted yearly by the local administration.

The newest important discovery of coal, in which the Government has taken an active interest, is centered near Kalejik, about 50 kilometers northeast of Angora; the seam, reported to be 112 feet deep and 9 miles long, appears especially promising on account of its relative proximity to the Angora-Sivas railway.

Digitized by Google

At Hazru (65 kilometers northeast of Diarbekir), at Palu (65 kilometers east of Harput), and at Chemish-Gezek (50 kilometers northwest of Harput), seams of apparent value are absolutely untouched. The Sivas area boasts of a single mine at Tokat (in the Province of same name), which contains excellent coal but is now abandoned. Finally, a thin streak of very superior coal has been located at Gumerdin, about 40 kilometers southwest of Kangri (Changra), in the Province of the same name.

### REDISTRIBUTION NEEDS

Coal is therefore pretty generally present throughout the country, but in a number of places it is absent where most needed; for example, the copper deposits of Argana, north of Diarbekir, where extraction of copper has languished largely for lack of smelting fuel since the forests of the region have been thinned.

## LIGNITE

The ubiquity in Turkey of lignite, sometimes called brown coal or wood coal, testifies to the primeval forest wealth of the country, particularly in regions now for generations entirely devoid of trees.

It is in general a very poor fuel, occurring usually in more or less intimate conjunction with clay, slate, and shale. Its poor burning qualities are offset, however, by the ease of extraction, most of the deposits being superficial, and by its fortuitous occurrence in places where other fuel is out of the question. The quality varies from the most recent formations where the structure of the original wood is apparent (exemplified by the deposits of Agatchli on the Black Sea coast northwest of Constantinople) to the oldest, closely resembling coal, occurring at Soma (northeast of Smyrna) and at Kermasti (about 58 kilometers southwest of Brusa and near Lake Abulyond).

### PRODUCTION

Lignite mining has shown considerable activity in recent years, especially under the strong impetus given by the war-time embargo on coal. The native industries and population have for a long time turned to the nearest lignite deposits for their fuel, particularly in regions where wood is scarce and where coal is either too expensive or wholly inaccessible for lack of transport connections with native coal fields or with ports of arrival for foreign coal.

The production of lignite from 1902 to 1907, inclusive, amounted to 150,850 tons, valued at $280,086. No estimate can be made of the war-time production, as operations were almost exclusively military. Although a total of 79 permits have been issued for the exploitation of lignite in Turkey, most of these have lapsed through disuse. That the country possesses really useful quantities of the fuel is an undisputed fact, although it is of no export value. The resource, however, should go far toward alleviating the domestic fuel situation, which in many parts of Turkey is rendered acute by forest denudation and lack of communications; and it should provide a stimulus to mining as well as to the fuel-consuming industries in general.

Digitized by Google

### BIGA AND BRUSA REGIONS

The largest and best-developed lignite deposits lie on the heights of Manjilik (43 kilometers southeast of Biga). There the seams, 6½ feet in maximum thickness and outcropping for a distance of 2½ miles, produce as much as 29,000 tons annually, feeding the electric power station, smelter, and other installations of the Balia lead-silver mines 20 kilometers to the southeast. The quality is exceptionally high, yielding 32.6 per cent carbon, 45.5 per cent gases, 12.6 per cent ash, and 9.3 per cent foreign matter.

Some 10 kilometers north-northeast of Brusa, unworked outcroppings exist at Demir-Tash, and farther north at Gemlek. At Geuveh, east of Lake Iznik, exploitation has been undertaken; also a pre-war start at Kureh, 15 kilometers southeast of Bilejik.

The Panderma veins to the west of Brusa, running from Kermasti to Mihalitch (along the west end of Lake Abulyond), never aroused much interest until war-time necessity actuated the authorities to extract some 300 tons per month for consumption in Constantinople. The quality for the most part is so poor that it would not burn unless mixed with coal or better lignite.

### SMYRNA

Farther south, in the Smyrna distict, large quantities of lignite were extracted by the Germans at Soma to supply the Smyrna-Kasaba Railway, a branch of which connects Soma to supply the main line at Manisa (Magnesia). The deposits here are abundant but inferior in quality; the mines, operated in a half-hearted manner after the armistice, stopped entirely in 1920.

Sokia, Sultan-Hissar, and Nazilli, along the Smyrna-Aidin Railway, produce large quantities of poor lignite for the Smyrna railways, gas works, and cloth and flour mills. Lignite has been found at Aidin, at Milas (58 kilometers south of Aidin), and at Geul-Hissar (68 kilometers northeast of Makri).

### CENTRAL AND EASTERN ANATOLIA

In the eastern Provinces lignite is of very frequent occurrence, although very little attention has been paid to extraction. Extensive surface masses exist on Tavshan-Dagh (just north of Marsivan) and near Tokat and Sivas. Still farther east and south, in the region centering at Harput, numerous veins of lignite exist at Zafranik (2 kilometers west), at Chengia (65 kilometers northwest), and in the Vilayet of Dersim (75 kilometers northeast).

In the Kars region of northeastern Anatolia are certain rich deposits that are too inaccessible from the one partially operating railway; but other deposits less inaccessible, such as those of Mullah-Suleiman (20 kilometers southwest of Toprak-Kaleh, or Alashgerd, in the Province of Bayezid), of Pagajik (50 kilometers east of Erzerum), and of Sivishli (immediate vicinity of Erzerum) were temporarily utilized by the Russians for railway needs during their occupation of this territory. In the Van district farther south, lignite has been found at Akcha (midway between Lake Van and the small Lake Archag, 30 kilometers to the east) and still farther southeast at Bash-Kaleh (about 80 kilometers southeast of Van).

Digitized by Google

### OTHER DEPOSITS

Deposits of minor importance, but not to be ignored, have been observed in the environs of Konia and Kastamuni, in the central region, and of Balikisir, Eski-Shehir, ancient Troy, and the Asiatic quarter of Constantinople, in the western region of Anatolia. Afion-Kara-Hissar, of opium fame, and Gulek-Bogaz (Cilician Gates) northwest of Adana also have received the interested attention of prospectors.

Even European Turkey is not without its modicum of lignite, notably in the vicinity of Adrianople, farther south at Uzun-Keupru, and more particularly at Rodosto and other points along the European shore of the Sea of Marmora. Along the Black Sea coast, about 25 or 30 kilometers northwest of Constantinople, are the deposits of Ak-Punar, Chiftalan, and Agatchli.

## COPPER

The copper "mines" of Turkey, with the outstanding exceptions at Argana, refer merely to ancient pits and half-buried mounds of scoria. Prospecting and survey have been too limited to reveal the extent or the thoroughness to which the ore may have been mined by successive races of men, dating all the way back to the Phoenicians and to the mysterious but presumably highly civilized Hittites who once made Asia Minor their home. What methods they used to extract all but comparative traces of the copper from the crude ore may never be known; but the present so-called "primitive" smelting methods in use at Argana leave five or six times as much copper in the rejected tailings as assay shows in the ancient scoria.

Judging from the multiplicity of the ancient mining sites, it is possible that the available quantity of cuprous wealth, though widespread, was extremely limited and that the ancients have left nothing for their successors. There may be a bit of truth in the remark, facetiously made by an authoritative mining engineer, that "Turkey is rich in poor mines." However, the ancients limited their exploitations to the coasts and did not, as a rule, get very far inland; thus, Argana (Arghana) alone is believed to hold enough copper to add appreciably to the world's supply.

### ARGANA MINES

The word "copper" in Turkey is inevitably associated with "Argana," a small town 40 miles north of Diarbekir, where Phoenicians are believed to have mined the ore 4,000 years before the Christian era. Not until 1846 A. D., however, was its mining seriously undertaken by the Government; then a smelting furnace was installed, and the crudely calcined metal was transported by oxcart northwest to Tokat for further refinement and ultimate export via the port of Samsun. Since then a moderate and variable production has been maintained, averaging about 700 long tons per year.

*Copper content.*—The deposits are reputed enormous and remarkably rich in copper, a cross section of the vein forming an ellipse 650 feet through its long axis and upward of 345 feet through its short axis. Scientific examination of the possible ramifications of the

Digitized by Google

vein have not even been attempted, but its total ore content has been estimated at 1,600,000 tons. Preliminary estimates, made in behalf of the Turkish Government and providing for the installation of ultramodern equipment, reckon a possible annual output of 15,000 tons of black copper, valued in round figures at $3,000,000.

Analyses of Argana copper ore show 15.65 per cent copper, 40.50 per cent sulphur, and 40.16 per cent iron. Actual copper content, however, has exceeded the analysis, averaging about 16 per cent and often running as high as 19 per cent.

*Exploitation.*—The crude ore has a bright, brass-yellow appearance, closely resembling iron pyrites or "fool's gold"; for this reason much interest appears to have been taken in the metal, but with little actual mining results, although 143 concessions for copper development stand recorded.

Of the six mines at Argana only one has been consistently worked by native owners. The remaining five were operated at various times by foreigners as well as by natives, the Italians attempting to apply the Manhess system in 1895. One by one, however, the mines were allowed to lapse through lack of enough capital to provide sufficient transportation and fuel. Kurdish labor is employed, the ore being extracted with handpicks and smelted in the simplest of furnaces.

Most of the crude metal, prior to the war, was shipped to England via Alexandretta, but a portion was refined in the Government plant at Tokat for the use of the State. From 1892 to 1898, inclusive, the average yearly output of smelted ore was 607.3 tons; from 1899 to 1911, inclusive, 1,136 tons; the total production for the 20-year period amounted to 19,025 tons. The war-time output, under German direction, bade fair to place the industry on a sound and permanent basis, although German researches, interrupted by the armistice, failed to make public the full extent of the copper wealth of this region.

The Turkish Government, very naturally interested in these mines as a rich source of much-needed revenue, has attacked the problem of Argana development with considerable animation, having definitely charged the National Credit Bank in Constantinople with the task of enlisting foreign capital for its exploitation, after a credit of £T1,000,000 "to assure exploitation" had been granted by the Assembly in the spring of 1924.

*Transportation needs.*—The Argana mines are situated in the Kurdish plateau, about midway between the Black Sea and the Mediterranean, and at a mean altitude of 3,609 feet. Mining enterprise is therefore restricted by lack of transportation, oxcarts being the only means of conveyance and the roads decidedly difficult.

The route northward to Samsun is largely mountainous, reaching an altitude of 8,800 feet, and covers a distance of 370 miles; it runs northwest via Arabkir and Divrik to Zara, west via Hafik (Kotch-Hissar) to Sivas, northwest via Tokat to Amasia, and northeast via Kavak to Samsun. The southern route crosses the plain to the port of Alexandretta (400 miles), by way of Diarbekir, Severek, Urfa, Birejik (Bir) on the Euphrates, Ghazi-Aintab, Kilis, Hammam, and Beilan, passing to the north of Aleppo. Transportation to either

Digitized by Google

port requires at least 10 or 11 days, and exploitation can never prosper until this difficulty is surmounted by railway connections.

The most feasible route, of course, is the southern, since the Bagdad Railway is comparatively near and connects with the Mediterranean at Mersina. The Turkish National Assembly has appropriated funds for the construction of a narrow-gauge line connecting the mine with the existing railway system. Eventual railway connection northwest with Sivas and Samsun is, however, not inconceivable. [For air-transport plan, see "Commercial aviation," p. 73.]

### HARSHUT REGION OF THE TREBIZOND

Trebizond and its hinterland (Gumush-Haneh, Kara-Hissar-Sharki, etc.), always famous for its copper but unworked in modern times, was once the source (along with Argana) of the raw material required by the native coppersmiths of Tokat, Trebizond, and their neighboring cities—now greatly reduced in numbers since the importation of manufactured utensils.

That active interest has been displayed in the copper of the Trebizond region, particularly of the Harshut and adjacent valleys, is evident from the 38 mining concessions and many prospecting permits granted at various times. Many of the concessions have become "makshuf" (not being exploited for reasons other than lack of mineral deposits) and therefore subject to cancellation by the Government; prospecting, though encouraging, has seemed to lead no further. As the western continuation, however, of the great Caucasian copper-mining system, apparently so well organized thousands of years ago, the Trebizond region may again become an important source of the world's supply of this metal.

The Trebizond copper deposits that center in the Harshut (Kharshut, or Khurshut) Valley region between Erzinjan to the south and Trebizond to the north, though unworked for many years and little known, rank next to Argana. The valley is reputed rich in copper, but nothing has been done to determine the approximate extent of the wealth.

*Ore occurrence.*—The ore occurs in attenuated veins, rarely in pockets or large masses, and is copiously intermixed with iron, lead, silver, lapis lazuli, malachite, and calcareous impurities. Veins and clefts are abundant, extending over an area of 965 square miles, and fall under three natural groups.

The western group, between the Harshut River at Tireboli and the Espieh-Suyu and the intervening Gelivera (Kelevera)-Dereh to the west, and extending inland as far south as the Yagli-Dereh (eastern affluent of the Espieh 18 kilometers to the south), includes the remains of former workings known as Kian-Maaden—the Eski-Fol-Maaden (48 kilometers southwest of Trebizond) and at ancient Argyria (on Black Sea coast, 1 kilometer east of Tireboli)—as well as remains at Tandon-Maaden (8 kilometers south of Tireboli). Similar relics exist in the Espieh Valley, at distances inland from the mouth of the river, as follows: Kurulujak, 5 kilometers; Agalik-Maaden, 4 kilometers; Kara-Erik (or Kararik), 4 kilometers; Lahana (Lachana, Lakhana), 9 kilometers; Kirlik-Maaden, 12 kilometers; and Kizil-Kaya Maaden, 15 kilometers.

Digitized by Google

The second group, spreading eastward from the Harshut River to the adjacent Chomlekji Valley and southeastward to the Zigana Mountains (50 kilometers southwest of Trebizond), includes abandoned mine workings, as follows (distances expressed from Tireboli): Monastir-Agzi-Maaden, 7 kilometers; Israil-Maaden, 12 kilometers; Sigirlik, 15 kilometers; Dere-Maaden, 40 kilometers, just east of Harshut River; and Kuran-Maaden, 45 kilometers.

The third group, comprising the Trebizond area east of the Chomlekji River, embraces two subareas—one about 20 kilometers from the Black Sea coast, on the Elehu-Deresi (a small stream next east of the Chomlekji, and second east from the Harshut), the other centering farther south on the Fol-Dereh (small river emptying into Black Sea, midway between Tireboli and Trebizond)—both having only ancient remains or abandoned workings.

The Elehu area contains the following mines, all grouped within a radius of a few kilometers: Eseli, Sade-Kereh, Yugen (Youghen), Sileh, Ak-Keui, Kara-Burk, and Kirlik. The Fol area (40 kilometers southeast of Elehu) contains the following mines, grouped within a few kilometers and averaging 5,000 feet in altitude, or three times that of the Elehu mines: Fol-Bashi, Eski-Fol (Kian), Fol-Maaden (Kian-Tepeh), Topuk (Upper and Lower), and Efkiar (including its extension, the Eski-Mahaleh).

*Exploitation.*—These mines, though long idle, furnish ample evidence of ancient (Greek), medieval (Byzantine and Genoese), and modern (early Ottoman) manipulation, in the veritable mountains of rejected scoria around them. The ancient Chalybes who settled on this coast were famed for their mines, and the remains are still to be seen on the west shore of the Harshut River, just east of the Black Sea port of Tireboli. Although the scoria left by these ancient workers still retain an average of 4 to 5 per cent of copper, the percentage is much smaller than that left by their modern successors at Argana, who discard about one-half of the rich copper content. Moreover, it is believed that the ancients were not primarily interested in the copper, but in the silver found in these mines.

Certain attempts at extraction in this region are reported to have been made during the World War, but at present the galleries have collapsed and are full of water, the adjoining furnaces are mere piles of débris, and the whole surroundings pertain only to the metallurgical activities of vanished races. Nevertheless, the Harshut copper is by no means exhausted, and proximity to the sea is a promising factor for its future.

### KARS REGION

In the vicinity of Artvin (southeast of Batum about 55 kilometers) the Caucasus Copper Co. (Ltd.)—Anglo-American—for several years has been successfully operating a mine at Tsansul in the Murgul Valley (western affluent of the Choruk, 20 kilometers northwest of Artvin), producing about 1,000 tons of ore daily. The refined metal is carried by wagon to Khopa (Hopa, Chopa), a Turkish open port 33 kilometers southwest of Batum. The company is contemplating large improvements, especially in the matter of transportation.

Digitized by Google

At Harzana (Qarzhana, Kharzana, Kvartschana), about 8 kilometers north of Artvin, the Siemens Copper Co. (German) exploits a copper mine which, like a number of other prospects in that region, may be safely characterized as distinctly promising.

### OTHER DEPOSITS AND MINES

*Eastern and central Anatolia.*—Copper has been mined in the neighborhood of Bitlis and abandoned mines exist still farther east toward the Iraq frontier, preeminently at Urumar and the Shemsdinan-Su, in the Hakiari Province, 25 and 60 kilometers, respectively, southeast of Julamerk. Just north of Erzerum deposits of real or imagined importance are said to be numerous.

Further evidences of former copper production on the Black Sea coast are the six mines at Sinop and the deposits of Kerasund. Southeast of Kerasund (about 110 kilometers) are veins of ore, supposedly rich in copper but best known for their silver, near Gumush-Haneh, a city named and famed for the more precious metal. Innumerable indications of probably minor deposits have been reported from the triangle formed by Amasia, Sivas, and Gumush-Haneh, the most promising of which are located in the vicinity of Sivas, Amasia, Yildiz (40 kilometers northwest of Sivas), Zara (50 kilometers east of Sivas), and Kara-Hissar-Sharki.

Malatia (85 kilometers southwest of Harput) is the landmark for neighboring veins of pyrites, and authorities persistently refer to copper near Palu (65 kilometers northeast of Harput).

The Province of Angora is not without its moiety of copper, the known deposits following the course of the Pursak River westward from its confluence with the Sakaria. Some formerly exploited deposits are located at Muhalitch (12 or 13 kilometers north of the Pursak and 50 kilometers northwest of its confluence with the Sakaria). The Elma-Dagh, 18 kilometers south and southeast of Angora, contains a large part of the unexploited deposits of both copper and lead-silver.

*Western Anatolia.*—Some 20 kilometers south of the port of Inebolu (midway of the Turkish Black Sea coast) masses of tailings found at Kureh indicate the mining activity of former ages at this site. The extent of the remaining deposit is unknown.

Still farther west, and east, southeast, and northeast of Izmid, ore yielding 3 per cent of copper has been found. Several concessions have been granted, covering a large area and including, among others, the mines at Orta-Keui (just north and northwest of Lake Iznik) and near Geuveh (50 kilometers east of Lake Iznik). Here, too, the advantage of position with reference to the Eregli coal region is readily appreciable.

In the extreme west, large deposits exist at Kilisse-Alan (45 kilometers southwest of Biga), where tailings of ancient workings show the copper pyrites to exist in conjunction with limestone, schist, and volcanic rock. Noteworthy also are the abandoned workings near Lapsaki (near the head of the Dardanelles).

Just north of Constantinople, behind the villages of Sari-Yar and Rumeli-Hissar, on the European side of the Bosporus, exist several copper mines worked during the Byzantine period and for the last time about half a century ago.

Digitized by Google

The Smyrna district has mines at Asarli (2 kilometers southwest of Tireh) and at Bulbul-Dereh (10 kilometers west of Oedemish). Finally, in the mountains behind Tarsus, copper indications are plentiful.

## IRON

Turkey can not be credited with any great wealth of iron ore, although outcroppings are exceedingly numerous and deposits often very large and in some instances of surprising purity. The full extent of the ore is unknown, prospecting having been confined principally to the northern and western seaboards where exploitation is naturally more feasible.

The ore occurs principally in the form of red hematite (the sesquioxide of iron), but it appears in other forms as well, such as limonite, better known as brown hematite (a hydrous ferric oxide), magnetite (an oxide), siderite (spathic or earthy iron, in the form of the carbonate), and various other more complex oxides. The principal impurities occurring with iron are manganese, silica, and arsenic, the latter most obnoxious of all.

The only deposits worthy of serious attention are those of Edremid (Adramyti, on coast north of Smyrna), of Payas (Bayas, on coast north of Alexandretta), and of the Marmora coast region. The deposits of the interior, even the general extent of which is still but vaguely understood, must await considerable elaboration of rail transport facilities before development on a paying basis can be contemplated.

### COASTAL DEPOSITS

Of the coastal deposits, the largest is situated on the Aegean coast at Ayasmund, just below the Gulf of Edremid, and the finest on the Mediterranean coast at Alaya (Alaia, Alaja) on the east side of the Gulf of Adalia.

*Mediterranean coast.*—With the exception of the active operations of the Anglo-French Caramanian Iron Co.'s production of 20,000 tons of iron per annum in the Anamur district (southern point of Itch-Il Province, 95 kilometers southeast of Alaya), all of Turkey's iron mining has been done by natives for local use only.

In the unexploited coastal deposit that lies between Payas (on the Gulf of Alexandretta) and Islahieh (50 kilometers to the northeast), the ore appears in three distinct grades varying in iron content from 30 per cent to 67 per cent. The layers are interlaced with limestone and serpentine marble, and the hematite itself is impregnated with a good percentage of phosphorus.

The iron most extensively extracted by the native population is that at Zeitun (135 kilometers northeast of Payas and 35 kilometers north of Marash). Most of this "Zeitun iron," famed throughout Syria and Iraq for its exceptional malleability, was found in 80 per cent purity in its natural state, more especially at Beirut-Dagh, a mountain 20 kilometers north-northeast from Zeitun. Extraction was discontinued 30 years ago, when metal goods of foreign manufacture began to invade the Near East.

On the west coast of Itch-Il Province are the deposits of finest quality, at Alaya (east side of Adalia Gulf). These are 94 per cent iron and practically free of impurities. The mines at the Melej

Digitized by Google

(Maladj, Melleche) extremity of these deposits were operated until 1914.

*Aegean coast.*—Aside from the large deposit on the Gulf of Edremid, the only important iron deposits on the western coast are found in the Smyrna region. At Vurla, 35 kilometers west from Smyrna, the argillaceous iron has been considered very hopeful for its commercial possibilities by reason of its easy access to the seaward outlet.

Between the village of Furtuna (main line of Smyrna-Aidin Railway, 30 kilometers southeast of Smyrna) and Torbali (station 6 kilometers farther southeast), the ore as mined occurs in massive layers of brown hematite and spathic iron from 13 to 82 feet thick; it has an iron content of 60 to 65 per cent, but its value is diminished by an arsenic content of 0.32 to 2.05 per cent.

In the Mentesheh region farther south, red hematite occurs in mines recently worked at Sakar-Kaya (at eastern end of Besh-Parmak Mountains, 38 kilometers southeast of Sokia).

The deposits previously mentioned as occurring at Ayasmund (9 kilometers to its northeast) are considered the richest in Asia Minor. The ore consists of magnetite and oligist found in granite.

*Marmora region.*—The Brusa district, on the south shore of the Marmora, was declared by German and Austrian engineers to be one of the richest sources of iron in the whole of Asia Minor. Concessions for 99 years have been granted in the villages of Altun-Tash and Burgas, just east of Mudania about 8 and 3 kilometers, respectively.

Important deposits have been located on both sides of the Dardanelles, but notably on the Anatolian coast between Burgas (20 kilometers south of Gallipoli) and Geurijeh (23 kilometers east of Gallipoli). The ore, 60 per cent iron, is mixed with manganese, silica, phosphorus, and sulphur. Similar ore is found farther inland, 12 to 18 kilometers from Burgas. The deposits at Lapsaki (8 kilometers south of Gallipoli) and farther east at Geurijeh are said to be plentiful; outcroppings in the latter region show magnetite and oligist encased in gneiss. Still farther east at Mihalitch, just west of Lake Abulyond, the red hematite appears again.

Good deposits of red hematite extend northeast from the port of Gemlek 8 kilometers inland to Buyuk-Benli, and reappear at Bazar-Keui, 15 kilometers northeast of Gemlek; these are considered valuable, owing to their proximity to the sea. The Bazar-Keui deposit, though mediocre in quality, is apparently well worth exploiting, its outcrop indicating a cleft 130 by 260 feet in cross section.

*Black Sea region.*—At Buyuk Dervend (15 kilometers east-southeast of Izmid) the ore is 60 per cent pure, manganese forming most of the extraneous matter.

Trebizond and its tributary regions contain uncertain quantities of iron, fairly well distributed but apparently not exceptionally rich. Farther west, on the high plateau 65 kilometers south of Tireboli, iron has been found in workable quantities at Chanhrak (Chankrak, Chakerak, Tchanhrak, Tshakrak).

Lazistan, in the northeastern corner of Asiatic Turkey, is the scene of considerable past activity in the iron deposits of Kazan-Dagh (50 kilometers north of Erzerum) and the environs of Demir-Dagh

Digitized by Google

(33 kilometers inland, southeast of Rizeh), a mountain rising to a height of 3,000 feet and named for its iron.

### INTERIOR DEPOSITS

Of the interior provinces, especially the eastern, the Van country leads in iron. The deposits are richest in the Provinces of Bitlis and Mush, west of Lake Van, but noteworthy deposits are found also in the Erzerum Province to the north and in its neighboring Province of Bayezid, northeast of Lake Van.

Many of these deposits are still untouched. In numerous other cases, the mines once the scene of active exploitation have long since been abandoned, as imported iron implements, tools, and utensils became easily available. In the district of Pir-Nashin (38 kilometers northwest of Bitlis) the evidences of still earlier abandonment of iron metallurgy is to be seen in the ruins of 300 furnaces that ceased to function a century ago.

The natives extract most of the iron for their own use from the mines of Arjivan (Erzerum Province, 10 kilometers south of Batum) and from the mines near Mush and the neighboring Sasun and from Kavar (35 kilometers south of Sasun), employing the traditional primitive methods of their fathers. Near Diarbekir and elsewhere along the upper Tigris, small quantities of the native metal are worked into shape by the Syrian, Assyrian, Chaldean, and Kurdish natives.

The mountain city of Mardin, 60 miles southeast of Diarbekir, has been the interior center of ironmongering, depending upon the ore of the countryside until it became the great central depot of railroad supplies for the extending Bagdad Railway.

## EMERY

### OCCURRENCE

With the exception of the deposits of superior quality on the Greek island of Naxos, the world's greatest and almost only known source of natural emery lies in a restricted area in the Vilayets of Aidin and Mentesheh in western Anatolia, the Aidin beds lying between the Buyuk Menderes (Meander) and the Kuchuk-Menderes Rivers, about Aidin, and the Mentesheh beds lying to the south of the Meander.

Freshly mined ore occurs in kidney-shaped, grayish lumps up to 6 inches in diameter, embedded in a closely adherent reddish-brown clay and calcareous crystalline. When heavily impregnated with magnetic iron its abrasive properties are greatly reduced. Turkish emery, however, is remarkably free from magnetite, although its reddish color after exposure to air and moisture indicates the ever-present iron, though only in traces.

### PRODUCTION

Emery ranks in value among the four leading minerals of Turkey. The deposit was discovered three-quarters of a century ago by John Lawrence Smith, an American mineralogist. Subsequent exploitation, growing with the foreign demand for this useful abra-

Digitized by Google

sive, resulted in a total output, from 1902 to 1914, of 331,091 tons valued at $5,141,864. Following are the figures by years:

| Year | Tons | Value | Year | Tons | Value |
|---|---|---|---|---|---|
| 1902 | 14,827 | $232,848 | 1910 | 27,657 | $394,086 |
| 1903 | 19,737 | 312,642 | 1911 | 29,429 | 470,553 |
| 1904 | 16,979 | 267,454 | 1912 | 37,448 | 593,190 |
| 1905 | 23,497 | 330,646 | 1913 | 42,487 | 673,006 |
| 1906 | 23,794 | 374,955 | 1914 | 19,110 | 286,642 |
| 1907 | 26,352 | 417,415 | | | |
| 1908 | 24,475 | 387,688 | Total | 331,091 | 5,141,864 |
| 1909 | 25,299 | 400,739 | | | |

The World War stopped production, but it was resumed to an unknown but certainly limited extent after the armistice, under Greek administration of the Province.

*Handling methods.*—As the deposits thus far developed are mainly superficial, the mining is simple, the stone being extracted from the open pits with pickaxes; but there are also a number of vertical shafts and horizontal and inclined tunnels with outbranching galleries.

In most cases transportation to the Smyrna-Aidin Railway is achieved by means of pack animals, supplemented by sundry aerial cables; the latter were mostly dismantled during the war.

### DISTRIBUTION AND CONCESSIONS

*Aidin region.*—The most productive area lies some 60 kilometers southeast of Smyrna, between Tireh (28 kilometers north-northwest of Aidin) and Sokia (40 kilometers west-southwest of Aidin, near the Buyuk-Menderes River) and on both sides of the Smyrna-Aidin Railway. The rich deposits there are profitably worked, especially at Alajali (10 kilometers west of Tireh) and at Gumush-Dagh (4 kilometers north of Sokia).

Nazilli (on the Meander, 43 kilometers east of Aidin) ranks next in production, and the finest emery of all comes from deposits still farther east and north along the Banas-Chai, or northern affluent of the Buyuk-Menderes (88 kilometers northeast of Nazilli).

*Mentesheh.*—A newer field, discovered by a Mr. Chihacheff and pronounced by him to be inexhaustible, lies farther south in the Mentesheh region; it forms an almost continuous strip from the mouth of the Buyuk-Menderes southeastward to Eski-Hissar (25 kilometers east of Milas), reappearing as far southeast as Mugla. This line is marked by mines near Derenjeh, Bafi, and Mendelia (all 40 kilometers east of the mouth of the Buyuk-Menderes, or 5 to 10 kilometers southeast of Lake Bafi); also farther southeast at Milas; and at various points between.

The absence of railway communications in the Mentesheh field has necessitated transport by camels, mules, and donkeys, in addition to a number of aerial cables. Most of the ore from Mentesheh is carried to the little port of Kuluk (20 kilometers southwest of Milas, on eastern shore of Gulf of Mendelia), which rivals Smyrna as an outlet for the mineral. Operations are comparatively new, but have been sufficient to indicate interesting possibilities.

Digitized by Google

*Concessions.*—The most promising concessions and the best mines have been absorbed by the British firm, Abbotts Emery Mines (Ltd.).[1] The interests of this concern include mines in the Nazilli area near Kuyujak (12 kilometers to the east); most of the mines in the Tireh area, including those around the little lake of Chaush-Cheshmeh (Kara-Geul), 5 kilometers west of Tireh, and on the Juma-Dagh just below Tireh; in the Scala Nova area, extending from Ayasoluk (railway station near ancient Ephesus) northward to Jelat and the adjacent Koz-Punar (railway station 28 kilometers west of Tireh); and mines in the Sokia area along the branch line of the Smyrna-Aidin Railway, from Balachik (the branch-line starting point) southward to Kemer and including Azizieh and Gumush-Dagh. The last-named, a mountain believed to be exceptionally rich in emery ore, is pierced by six productive mines of the Abbotts Co.

Important deposits are worked also by various concessionaires in the Arkaja (12 kilometers west-northwest of Tireh) and near Hassan-Chaushlar (20 kilometers west-southwest of Tireh). There are enough independent emery mines in the field to permit of competition, but apparently the best have all been bought up by the Abbotts.

*Conclusions.*—Subsequent to the discovery of emery in Turkey, the manufacture of substitute compounds in the United States and Canada, under such trade names as "carborundum" and "corrundum" were expected to injure the production of the natural abrasive. Such has not been the case, however, and this fact shows that the world's demand has so far outgrown the supply from Asia Minor and the Greek island of Naxos as to give rise to this artificial supplementary supply, equivalent to the native stone but much higher in price.

It is therefore accepted as self-evident that present production in Turkey could be many times multiplied without the remotest danger of glutting the markets of the world. As there are no known rules for the detection of emery deposits, the probable wealth of Anatolia in this mineral can not be even approximated, but up to the present time mining has extended little farther than scratching the surface.

## CHROME

Turkey formerly produced upwards of 60 per cent of the world's chrome supply. Until the discovery of important deposits in New Caledonia and Canada, none but Turkish chrome was available, although the ore was first discovered in Maryland and has been known to exist in California, Pennsylvania, the Ural, the Shetland Islands, and New Zealand. In 1913 Turkey still ranked third in its production, and in 1922 fourth, with an output of 25,000 tons.

### OCCURRENCE

Turkish chrome ore occurs in its natural state in the form of an oxide of chromium and iron, inclosed in tertiary serpentine stone. It contains from 44 to 56 per cent of chromic oxide. Used principally in the manufacture of chrome steel, the exceptional value of the

[1] This concern at the present time involves a considerable American interest.

Digitized by Google

Turkish ore was long ago appreciated by the German Krupp interests, and a major concession was obtained for them in the Brusa region, the heart of the chrome fields.

### PRODUCTION

The chrome industry has been handicapped by the fact that the richest districts are most sparsely equipped with transportation facilities; but this has not prevented Turkey from holding the lead in the world's chrome production. From 1906 to 1917, excluding 1915 and 1916, the output of Asia Minor amounted to 177,451 tons, valued at $2,270,870. In the past two decades a mean annual output of 25,000 tons of the ore has been maintained from the three distinct zones of Brusa, Smyrna, and Adana.

Notwithstanding the few deposits actually exploited out of the large number of concessions, chrome ranks high among ores produced in Turkey. Where deposits are not favored by proximity to seacoast or railway, electrolytic refineries would make up for transportation difficulties. The State levies 10 to 15 per cent in kind at the port of shipment, according to distance transported.

### DISTRIBUTION

*Brusa region.*—The world's greatest known deposit, calculated to contain 10,000,000 tons of the very best chrome ore (50 per cent to 56 per cent $Cr_2O_3$), is situated at Chardi (Harmanjik) in the wild and remote country to the south of the Mysian Olympus, 65 kilometers equidistant from Brusa to the north and from Kutahia to the southeast, and 85 kilometers distant from Sultan-Shehir on the Soma-Penderma Railway to the northwest.

Despite the primitive communications, several mines have been worked in this region, notably at Dagh-Ardi (15 kilometers south-southwest from Chardi). For many years this has been the most productive mine in the country, worked by and for the Government with an annual output of 12,000 to 15,000 tons. The vein is the largest known, measuring 250 feet in length, 75 feet in breadth, and 60 feet in depth.

Lesser mines, which may be regarded as satellites of Dagh-Ardi, include among others the Artiranlar (10 kilometers southeast of Chardi), and the Karaja-Keui (10 kilometers south of Chardi). At Miran-Maaden (5 kilometers northwest of Chardi) and at Kozluja-Maaden (9 kilometers southeast of Chardi) there are small veins from which about 4,000 tons are sent yearly to the United States and England. Karli-Yer (23 kilometers east of Chardi) is the most important of the Krupp mines.

Many of the mines in this section were shut down in 1908, as a result of a sudden fall in price, and have not since been reopened because their relative remoteness and want of transportation facilities makes present operation unprofitable. [The projected extension of the Kutahia branch railway should eventually remedy this condition.—*Editor.*]

The Brusa chrome zone includes further separate series of veins around Dumanitch (50 kilometers northeast of Chardi); also in the extreme west at Punar-Bashi in the kaza (county) of Ezineh (Ine)

Digitized by Google

near the coast opposite the island of Tenedos; at the neighboring localities of Demrek (13 kilometers northeast), Hissarlik (8 kilometers northwest), and Ishiklar (20 kilometers east-northeast).

Although deposits of uncertain importance have been found as far north as Geuk-Dagh, Belen-Dagh, and Kiose-Agzi, all in the vicinity of western Kastamuni, exploitation has been confined to the central portion of the Brusa zone. The sole coastal outlet is the Marmora port of Gemlek; near this town, thanks to convenience of location, another small mine is being zealously worked.

*Makri region.*—The second great center for chrome mining lies mainly in the Vilayets of Aidin, Denizli, Burdur, and Mentesheh—in the remote hinterland of Smyrna—spreading over a large section of southwestern Turkey somewhat farther east than the port of Makri, east of the island of Rhodes. Most of the 145 concessions granted for chrome mining are included in this district, and the port of Smyrna is the outlet for nearly all of the region's production.

Although few of its concessions are worked, the industry was affected less here than elsewhere by the 1908 fall in price, obviously because of the Smyrna-Aidin Railway system. In fact, since 1908 the Makri zone has been practically the only source of Turkish chrome, by virtue of the railways in its northerly portion and the fortuitous occurrence of workable coastal deposits to the south.

Denizli marks the northern source of the ore, its position on a branch of the Smyrna-Aidin Railway facilitating export via Smyrna. Farther south there are excellent deposits at Mugla (20 kilometers northeast of Gulf of Koz), but their mining has been hampered because there is no transportation connection with any port except by slow and expensive caravans.

Close to the town of Makri itself, chrome mining prospered during the last few years before the war. In the best mines—those scattered along, on, or near the coast from the Haji-Nikola mine just south of Makri northward to the Kemikli mine on the Kizil-Dereh and the Paterson mines near the confluent Nif-Chai, and extending to the Keuijek-Ali-Pasha mine in the interior of the kaza of Keuijekes (Koidjigez, Kojek, Kiochek, Göjek) some 50 kilometers northwest of Makri—the veins are from 3 to 7 feet thick, and the chromite content from 40 to 52 per cent.

The industry in this southwestern zone awaits only railroad expansion. Vast quantities of chrome ore are reported to lie in the general region tributary to Smyrna and Makri, and if this area were tapped by a sufficient number of branches from the Smyrna-Aidin main line, including a line from Aidin to Makri, as already proposed, there is no reason why the industry should not rapidly prosper.

*Adana region.*—The third and least important source of chrome may be called the Adana zone centering around Mersina and Tarsus, where the overland transportation difficulty is obviated largely by proximity to the sea. The ore is good (50 to 53 per cent), but the veins are thin and scattered. The active mines are at Evrenli (25 kilometers northwest of Mersina) and at Yarpuz (55 kilometers north of Alexandretta). In both cases the mines are close to the Bagdad Railway and easily accessible to the seacoast.

In 1910 some 1,800 tons were exported from Mersina. Subsequent activity has been more or less sporadic, but 1913 exports to France

Digitized by Google

and Germany had a value of $22,770. The average annual output of these mines may be estimated at 1,000 tons. Unless exploited on a large scale, the known deposits are unlikely to prove as profitable as in the northern fields.

## MANGANESE

The manganese deposits in Turkey have not by any means been carefully prospected, but the numerous mines dotting the entire coast line of the country indicate important resources. The quality heretofore obtained leaves nothing to be desired, and exploitation has prospered wherever undertaken.

The ore appears in the form of the pyrolusite, the peroxide, and occasionally the silicate. It also appears in veins of psilomelane inclosed in marl and limestone, traversed by streaks of serpentine. Veins vary in thickness from 1 to 10 feet.

### EXPLOITATION

The true manganese wealth of Turkey, although undetermined, is undoubtedly of serious importance. Of the 51 concessions granted, very few have ever been worked, so that the known wealth is out of all proportion to actual production. Output has not exceeded an average of 20,000 tons a year, and since 1906 only 49,630 tons have been exported, although prior to that year the industry was much more active.

Enterprise has been restrained by the difficulty of ore transportation and by the competition from Russia, Brazil, and India. In comparison with Russia's production of 9,500,000 tons during the first 13 years of the present century, Turkey's production dwindles in importance. But wherever accessible by the limited transportation, extraction has invariably been well repaid. The ore has always met with a ready demand in American and European markets, and the output might easily be many times multiplied before the world's demand is likely to slacken.

### DISTRIBUTION

*Black Sea region.*—The largest deposit in the country is located near Eregli on the Black Sea. Although little is known about it, the proximity to the sea and to the coal fields of that region makes exploitation appear promising. There are also six mines near Tireboli, farther east along the Black Sea coast, most of them in the same general area as the copper mines of the Harshut Valley region. These have not been worked, however, since 1882. Between Samsun and Tireboli there are numerous veins in the vicinity of the ports of Ordu and Fatza.

*Marmora region.*—Manganese deposits occur on the east, south, and southeast of the Sea of Marmora. On the east lie the mines of Ak-Hissar (40 Kilometers east-northeast of Lake Iznik) and of Saz-Keui (15 kilometers south-southeast of Gemlek), as well as the deposit at Armudlu (30 kilometers west-northwest of Gemlek on the north shore of the Gulf of Gemlek); the latter apparently possesses a fairly pure ore. On the south of the Marmora, near Chepni (4 kilometers south-southwest of Mudania) are outcroppings of iron ore

Digitized by Google

and manganese. On the southwest, near Biga, are a number of mines, notably those in the vicinity of Bakajak (37 kilometers west).

The manganese of the Balia-Maaden concession to the inland (60 kilometers southeast of Biga) is well worth extracting, as the ore yields 30 to 40 per cent, but its importance is overshadowed by the silver-lead for which the place is famous. Much farther inland, at Elezli (18 kilometers southwest of Ushak), manganese has been found; but the deposits are almost inaccessible.

None of the mines mentioned above have been very energetically worked in recent years, and past production is no criterion of possible importance.

*Aegean region.*—The Smyrna region is known to contain 38 distinct veins of real value, but only a few were ever worked. Those at Hassan-Chaushlar (20 kilometers west-southwest of Tireh), at Yenije-Keui (15 kilometers north-northwest of Makri), and at Karaja (30 kilometers northwest of Makri), with one other, yielded prior to 1900 from 1,000 to 1,500 tons of very good ore each year. Postwar attempts were made to resume activity in this quarter, but results appear questionable. Other mines, worked in past years, exist at Buhush (30 kilometers east-northeast of Adalia) and at Mendus-Dagh (10 kilometers southeast of the port of Makri).

*Mediterranean region.*—Second only to the deposits of Eregli are the well-known veins of Finika, on the very shore of the Mediterranean west of the Gulf of Adalia. Here the outcroppings are exceedingly numerous, and vary in thickness from 1 to 10 feet, with a length sometimes of 100 feet. The ore is fine-grained, averages 40 per cent pure manganese, and assays as high as 52 per cent.

## SILVER

### OCCURRENCE AND CONCESSIONS

In a discussion of the silver industry in Turkey it is difficult to confine the text to silver alone, for almost without exception the metal occurs in conjunction with gold, lead, iron, or copper, and the concessions, with the exception of the Bulgar concession in southwestern Anatolia, are exploited equally or more for the other metals.

In all, there have been granted 207 concessions that include silver, but the great majority have never been worked, and in most of them silver is a minor consideration. The concessions have been dotted all over the country, from Adrianople to Diarbekir, and from Adana to Trebizond, but the failure to extract silver from them has been due, not to its nonexistence in paying quantity, but to the lack of fuel, transportation facilities, and satisfactory equipment, and to inadequate labor and incompetent management.

### MINES

*Balia-Maaden.*—Probably the best-known mine producing silver is the Gumush, in the Balia-Maaden group (18 or 20 kilometers southeast of the town of Balia—Balia-Bazar-Keui in full—or 60 kilometers southeast of Biga), in the Vilayet of Balikisir in northwestern Anatolia; but the output is confined largely to lead and zinc, the ore yielding only some 1,950 grams of silver per ton.

Digitized by Google

There are also two silver-lead mines south of Kermasti (58 kilometers southwest of Brusa, or 13 kilometers southwest of Lake Abulyond).

*Bulgar-Maaden.*—The Bulgar-Maaden silver-lead mines are located at an altitude of about 5,000 feet in the Bulgar Mountains north of Tarsus, at a point 30 kilometers west-northwest of the Cilician Gates, or 70 kilometers north from the Mediterranean port of Mersina, and within easy access of the Bagdad Railway to the north. These deposits have been investigated more or less since 1863, and have been exploited at one time or another by a Greek company and by the Turkish Government. Exploitation has now been discontinued for several years for lack of means. The ore showed 20 per cent of lead, 6½ kilos of silver, and 30 to 40 grams of gold per ton.

*Keban-Maaden.*—Another silver mine, the Keban-Maaden, lies some 55 kilometers west of Harput, at a point on the Euphrates about 15 kilometers below the confluence of its two branches, the Kara-Su (Western Euphrates) and the Murad-Su (Eastern Euphrates). The mine was exploited from 1810 to 1877, but was abandoned in the latter year for lack of wood. It is now suggested that the coal deposits at Palu (on the Murad-Su, 65 kilometers east of Harput) and those at Chemish-Gezek (50 kilometers northwest of Harput, on a small affluent of the Kara-Su) make the resumption of operations practicable, although no steps in that direction have been taken.

*Gumush-Haneh.*—At Gumush-Haneh ("the house of silver"), some 75 kilometers southwest of Trebizond in northeastern Turkey, silver deposits were exploited for long years, as also were deposits at Kara-Hissar-Sharki (70 kilometers south of Kerasund), at Dere-Keui and at Katir-Alan (both about 15 kilometers northwest of Kara-Hissar-Sharki), and at Keshap (10 kilometers east of Kerasund, on the coast); but operations are now at a standstill.

*Other deposits.*—In the Vilayet of Amasia, in north-central Turkey, are two well-known deposits of argentiferous lead whose regular exploitation, it is believed, would give satisfactory results. One, belonging to the State, is at Gumush-Haji-Keui (20 kilometers west of Marsivan); the other is in the Tavshan-Dagh (just north of Marsivan and 80 kilometers southwest of Samsun).

Certain silver-lead mines near the city of Diarbekir were at one time exploited very irregularly by the Turkish Government.

In the Vilayet of Erzerum there are mines at Ispir (on the Choruk River, 75 kilometers northwest of Erzerum city), which are now badly and irregularly exploited. Unexploited veins of silver have been reported as existing farther down the Choruk River, south of Batum, as well as near the city of Erzerum itself.

## LEAD

Lead, like other minerals in Turkey, has suffered from inaccessibility, labor and capital shortage, insufficient technical equipment, and political instability. However, during the four years from 1908 to 1911 the total output of lead and argentiferous lead ore reached 50,569 tons valued at $3,681,150, which furnishes a slight idea of the profit to be derived from the industry under normal

Digitized by Google

conditions. Concessions for extraction of lead, granted thus far by the Turkish Government, number 164 and cover discoveries scattered all over the country.

MINES

*Balia-Maaden.*—By far the most important concession as an active exploitation is that of Balia-Maaden in the Vilayet of Balikisir. Here the ore yields from 16 to 20 per cent of lead and 8 per cent of zinc, and the equipment includes a refinery with a capacity of 400 tons per day. As early as 1903 the output of ore for the year reached 63,000 tons, which yielded 7,600 tons of lead, 2,000 tons of zinc, and 1,950 grams of silver. Active exploitation continues to the present day, greatly encouraged by accessibility to the sea at the eastern extremity of Edremid Gulf.

The Balia-Maaden concession covers three localities: (*a*) The Balia-Maaden, or principal mine group, 60 kilometers southeast of Biga, comprising the two oldest and richest mines of Hoja (Khoja, Kodja, Koda) and Gumush; (*b*) the coal and lignite mines at Manjilik, 20 kilometers to the north-northwest, from which the enterprise gets its fuel; (*c*) the Karaidin (Kara-Aidin) mine, 35 kilometers west of Balia-Maaden and on the northernmost slopes of the Kaz-Dagh (Mount Ida Range). The company operates a narrow-gauge railroad from the coal mines to Balia-Maaden and thence south 15 kilometers to the highway, over which wagon transport takes the mine product to the little port of Ak-Chai on the Gulf of Edremid. The concession is held by the Société Anonyme Ottomane de Balia-Karaidin, and the mines as a whole are therefore commony called the "Balia-Karaidin" mines, or simply "Balia."

*Marmora region.*—In the same general area to the south of the Marmora are: A mine 16 kilometers south of Lapsaki (near upper end of the Dardanelles); the silver-lead mines opened at Dumbelek (12 kilometers south of Kermasti); outcroppings near the Mentesheh-Dereh (13 kilometers northwest of Soma on the railway connecting Smyrna and Panderma); traces of ancient workings near Bergama (35 kilometers west of Soma); the Kara-Dagh mine (30 kilometers southwest of Biga and 45 kilometers from the port of Kara-Biga on the Marmora) which, though closed by landslide, is pronounced the richest lead mine in Asia Minor; and a derelict lead-zinc mine at Kara-Su in the Vilayet of Izmid (10 kilometers southeast of the mouth of the Sakaria River).

*Bulgar-Maaden.*—In the southern part of the country, in the Anti-Taurus Mountains, numerous outcroppings of lead appear. The most notable is in connection with the Bulgar mine (discussed in the preceding paragraphs dealing with silver), where the very cursory examinations hitherto made indicate a lead yield of 20 per cent.

*Angora-Sivas region.*—In the Angora-Sivas region there exist three known lead deposits of importance. The first, the Denek-Maaden, lies just south of the Denek-Dagh, 58 kilometers southeast of the city of Angora and only a short distance from the Angora-Sivas Railway, now under construction; the second, the Ak-Dagh-Maaden, is west of the Ak-Dagh range and 100 kilometers west-southwest of Sivas, much nearer the same railway; the third

Digitized by Google

is at Gumush-Haji-Keui, 55 kilometers northwest of the city of Amasia and of the projected Sivas-Samsun Railway.

The latter deposit was exploited in the past more particularly for its silver and gave satisfactory results, but had to be abandoned because of the difficulties of transportation. Railway construction will not only eliminate these, but will doubtless bring to attention other deposits of importance in the same region.

*Keban-Maaden and other deposits.*—Mention must be made of the Keban mines (on the Euphrates 55 kilometers west of Harput), now abandoned but formerly exploited principally for silver.

In the Vilayet of Van are several mines that are being operated by the natives of the region in a primitive fashion, to get lead for their rifle bullets.

About 15 kilometers south from the Black Sea, in the neighborhood of the port of Trebizond, is a deposit of lead which experts have pronounced especially rich.

## MERCURY

Mercury is found in a number of localities in western Anatolia, notably in the neighborhood of the Buyuk-Menderes (Meander) River. The output during the four years from 1908 to 1911 totaled 398 tons, valued at $309,883. Since then the political and military conditions have not only prevented expansion of the industry but have caused a heavy decrease in its production.

### CONCESSIONS

Mercury concessions have been granted to the number of 24, all in the regions of Smyrna, Konia, and Balikisir. Only two of them have been exploited, however—one in the Vilayet of Smyrna, and the other at Sizma, 38 kilometers north of Konia and 15 kilometers west of the Anatolian Railway.

The Smyrna concession (at the headland of Kara-Burun at the entrance to Gulf of Smyrna) is exploited by the Kara-Burun Mercury Syndicate (Ltd.), which has a plant consisting of three smelters, based on an extraction capacity of 30 tons per day. The output is some 3,000 flasks per annum.

The concession at Sizma was formerly exploited by the Konia Mercury Syndicate (Ltd.), but operations have been interrupted since 1912.

## MEERSCHAUM

### OCCURRENCE AND OUTPUT

The world's most important and almost unique supply of meerschaum lies in a small area extending along the Pursak-Chai, a distance of 10 to 45 kilometers eastward and northeastward from the Eski-Shehir junction of the Anatolian Railway branch to Angora, and in more meager deposits a like distance to the west. The scene of meerschaum extraction extended at one time over a much wider range, and it is believed that deposits still exist throughout this area. Outcroppings have been reported as far west as the Dardanelles, but never exploited.

Digitized by Google

The mines near Eski-Shehir, on the outskirts of the broad valley of the Pursak River, have been known and worked for 2,000 years, but serious exploitation dates only from the middle of the nineteenth century. Lumps of meerschaum of different sizes and varying in color from gray to reddish brown occur throughout this area, embedded in friable rock.

During the eight years from 1902 to 1909 the total output was 46,651 cases, of a market value of $2,021,769. Production since 1909 has been hampered by revolution, war, and general instability of conditions, but since 1922 the business has shown a tendency toward increase.

### METHOD OF EXPLOITING

The method of mining is very primitive, the equipment consisting of a hand pick for excavating and a basket and windlass for raising the meerschaum to the surface. Once extracted, it is sold to the native experts in Eski-Shehir, who polish it, rub with paraffine, grade, and pack it for exportation in cases weighing from 30 to 35 kilos.

The meerschaum beds bring active competition to several thousand miner-proprietors, the State giving the deposit to the discoverer and contenting itself with levying a royalty of 75 piasters per case, regardless of quality. Before the World War a study was made with a view to discarding the present system of individual ownership under which the shafts are abandoned at the point where pumping becomes necessary and substituting therefor a capitalistic exploitation with more complicated and costly equipment for working the deeper levels. Recently, incorporation of the Société Anonyme Turque d'écume-de-mer d'Eski-Chéhir has been officially approved.

## SULPHUR

On account of its volcanic situation, Turkey is supposed to contain abundant deposits of sulphur, notably in southern Anatolia; but as very little prospecting has been done, there is practically no dependable information as to the extent of sulphur wealth available. Ten concessions for sulphur extraction have been granted, but six of these have lapsed and only one—that of Kechi-Borlu, in the Vilayet of Burdur—has been worked.

There is a known sulphur deposit at Kumarlar (35 kilometers east-southeast of Chanak), another at Urgub, some 50 kilometers west of Kaisaria (Cæsarea) in central Anatolia; and reports indicate its existence in the region of Bayezid, northeast of Lake Van. None of these, however, have received the practical attention of capital, and their present output is almost nil.

*Kechi-Borlu mine.*—The Kechi-Borlu sulphur deposit is situated some 16 kilometers southeast of Dineir, a town on the Egerdir extension of the Smyrna-Aidin Railway. Exploitation of these beds was undertaken during the World War, by the Ministry of Commerce and Agriculture, in the hope of supplying a deficiency that has always been met by importation, chiefly from Italy. After the war the mine was let to private enterprise, but the work has been carried on without system and without very practical results, so that the actual possibilities of the deposit are unknown.

59573—26——11

Digitized by Google

## ANTIMONY

The principal sources of this metal are in the present Vilayets of Kutahia (formerly part of Brusa), Aidin, Smyrna, and Mentesheh. In the Vilayet of Kutahia is a mine, situated to the south of the town of Kutahia and 24 kilometers east of Gediz, where the deposit is said to be in the form of a vein of ore from 0.1 meter to 2 meters thick.

In the Vilayet of Smyrna is a mine near Oedemish (45 kilometers northeast of Aidin) where two veins of the ore are said to extend to a distance of some 2 kilometers; this deposit has yielded a mean production of about 1,000 tons per annum. There are also mines north of Nazilli in the Vilayet of Aidin, and two others on the Gulf of Koz in the Vilayet of Mentesheh.

The production for the three Vilayets of Smyrna, Aidin, and Mentesheh (known as the Vilayet of Aidin, or Smyrna, prior to separation in 1923) for the two quinquenial periods 1902–1906 and 1907–1911 was, respectively, 2,081 and 1,915 tons. The maximum and minimum figures were 953 tons in 1906 and 62 tons in 1909. The figures for 1911 (the latest available) show a production of 697 tons, all of it exported to the United Kingdom.

In the Vilayet of Kara-Hissar-Sharki (formerly part of Sivas Vilayet), deposits of antimony have been located near the town of Kara-Hissar-Sharki.

## BORAX

The production of borates in Anatolia is considerable, averaging for the four years 1907–1910 about 13,000 tons per year. Pandermite, or boracite or borate of lime, is so called from the former kaza of Panderma where it was obtained, and from its port of shipment of the same name, on the Marmora.

The deposits are located some 60 kilometers south of Panderma, between Susurlu on the Soma-Panderma Railway branch and Balikisir, 35 kilometers to the southwest. The first modern working of these beds began in 1865, and the mineral made its first appearance in Europe in 1868. For a long time it was exported as sulphate of lime and gypsum. The deposits were formerly worked as open quarrries, but this method was abandoned because of the lay of the beds, and to-day the workings are all underground.

Deposits in the basin of the Demir-Kapu (Sultan-Chai, south of Susurlu) are disposed in a bed or seam about 18 miles in length and 5 miles in width, inclosed by mounds of gabbro, granite, and schist. The mineral occurs in nodules dispersed through gypsum in proportions reaching as high as 90 per cent; deposits containing less than 10 per cent are not worked.

The specific hardness of pandermite is 3.5, its gravity 2.3 to 2.5. The composition of pandermite in its pure state, before calcination, shows 50 per cent of boracic acid; after calcination, 55.85 per cent. Commercially it is sold on the basis of 44 per cent boracic acid. Before the war the principal markets for pandermite were France, England, and Germany; but now a considerable portion of the output goes to the United States.

Digitized by Google

## ALUM

The deposits of ore yielding alum are numerous and fairly extensive, and the mineral has been worked from time immemorial, to the great detriment of the vast forests which once covered the country.

The principal source of the mineral is in the neighborhood of Kara-Hissar-Sharki, to which place it has given the alternate name of Shebin-Kara-Hissar (Black Castle of Alum). An analysis of ore by the École des Mines of Paris showed 14.8 per cent of alumina. Two other important sources of alum are located near Vurla (35 kilometers west of Smyrna); the deposit is of chalk formation and contains 50 per cent of alumina and 32 per cent of oxide of iron.

## ARSENIC

Arsenic ores, as orpiment and realgar, are produced almost exclusively in the Balia-Maaden (Vilayet of Balikisir) and as an accessory. In the form of mispickel (arseno-pyrite), realgar, and orpiment, it occurs in the neighborhood of the city of Kastamuni. There are also deposits to the south in the Vilayet of Kangri, occuring in rock of cretaceous formation.

In the Vilayet of Aidin, near the city of Aidin, arsenic occurs as mispickel. As in the Kastamuni deposits, the ore is frequently argentiferous and auriferous. Near Tireh (southern terminus of the Torbali-Tireh-Oedemish branch of the Smyrna-Aidin Railway), veins of arsenic ore occur; near the neighboring Oedemish there have been located pyrites and two veins of arsenic ore containing from 8 to 190 grams of gold to the ton.

Arsenic ore from the mines near Zara (50 kilometers east of Sivas) contains from 5 to 10 grams of gold to the ton. Of two other mines in the sameVilayet, one yields about 500 tons of auriferous arsenic ore per annum, all formerly exported to France; the other yields ore containing 42 per cent of arsenic and a small proportion of gold, and the annual export of its product to Europe was formerly some 1,000 tons. There are other deposits of arsenic ore in the Taurus range.

The figures for the entire production of arsenic for the six years, 1902–1907 (the latest available) show about 184 tons.

## SALT

The production of salt is a Government monopoly, under the control of the Council of the Ottoman Public Debt, and is a valuable source of revenue to the State. Its output from all sources may be estimated at about 3,500,000 tons per annum. A considerable amount is exported to Bulgaria, Yugoslavia, and Rumania, and some 500,000 tons are said to be sold annually to India. The deposits, both as rock salt and as brine solution, are widely distributed, exceedingly rich, and frequently of great purity. While considerable rock salt is mined, by far the greater amount is derived from the heavily saturated waters of springs, lakes, marshes, or brine deposits, by most primitive methods of natural evaporation. The chief sources

Digitized by Google

for evaporated salt have been, in the order named, the pre-war Provinces of Aidin, Konia, Angora, and Kastamuni.

The Aidin supply is derived mainly from the extensive coastal marshes and lakes of the present Mentesheh Vilayet, particularly on the north shore of the Gulf of Koz, though some comes from similar marshes near Smyrna. The Konia supply is derived almost wholly from the deposits left by natural evaporation of the extensive salt lake "Tuz-Geul" (or Tuz Cheullu) where the chloride of sodium content is as high as 32.2 per cent. The Murad-Geul, just to the west of Tuz-Geul, yields also sulphate of magnesia and soda. The total annual output of this region is estimated at 20,000 tons, and its product is remarkably free from bituminous matter. The Angora salt region is embraced mostly in an area now represented by the Vilayets of Kir-Shehir, Yozgad, Chorum, and eastern Angora. Its producing centers, covering both natural and artificial evaporating beds, extend from Haji-Bektash in the south to above Sungurlu in the north, lying within the great bend of the Kizil Irmak.

The salt springs of Kastamuni Province are the source of supply for a very considerable amount of evaporated salt. Some evaporated salt is produced also at Aivali (formerly in the Brusa Province, now the Balikisir Vilayet); at Bairamitch (formerly in the Biga independent sanjak, now the Vilayet of Chanak-Kalesi); and along the coast in Adana Province, particularly at the mouths of the Seihan and Jeihan Rivers.

The rock salt deposits, though numerous, have not been worked to any extent. The most typical mine and the one from which comes the greater part of the market supply is the great salt cavern at Kangri (formerly in Kastamuni Province, now in the Vilayet of Kangri). Other valuable mines are at Palas (53 kilometers northeast of Kaisaria, at the northern end of the smaller Tuz-Geul), where the beds are 12 to 15 meters in thickness.

## OTHER MINERALS

In addition to the minerals previously described, nickel, zinc, tin, fuller's earth, cobalt, phosphate, alabaster, platinum, and gold may be mentioned as contributing in varying degrees to Turkey's mineral wealth. Of these, zinc plays an important part in connection with silver and lead, and is extracted in profitable quantities. Operations in gold have been small, but have repaid the efforts put forth. The other minerals are known to exist, but their exploitation has not yet been undertaken on a sufficiently large scale to disclose their true importance.

## PETROLEUM

Turkey's eastern region borders on rich petroleum deposits whose known areas of importance lie almost exclusively within the neighboring states of Russia and Persia and in the disputed district of Mosul. However, the probability of petroleum in profitable quantities in eastern Anatolia, as a continuation of the oil fields of the Russian Caucasus and Persia, seems fairly well established. For instance, at Terjan (Mamakatun) 85 kilometers west of Erzerum, petroleum is gathered on the surface of the water for use in the houses of the neighborhood; a bitumen deposit is reported in the

Digitized by Google

Vilayet of Van; and the existence of oil has been discovered at Bargiri (Pergri, Bergiri, Bergri) 15 kilometers northeast of Lake Van. The indications are, of course, very meager, and it is possible that ultimate prospecting may not support the present optimism.

Indications are not confined to eastern Turkey, however, oil-bearing lands having been reported near Kavak, south of Konia; at Mugla, northeast of the Gulf of Koz; near the lake of Iznik, 15 kilometers east of the southeastern arm of the Marmora; around the Sea of Marmora, including European Turkey; and near the Black Sea port of Sinop. None of these deposits have reached the stage of exploitation, and as the Government shows a tendency to proceed very cautiously in the matter of petroleum it appears improbable that much information of importance will be disclosed to the public.

Under the prevailing system of licensing prospectors, a very careful check is kept on discoveries. For the moment, interest in oil is wrapped up in the question of the future sovereignty of the Mosul region, and it is probable that such other oil wealth as exists, if any, will be kept in the dark until the Mosul controversy is settled.

## THERMO-MINERAL SPRINGS

### OCCURRENCE

The wide distribution of thermal and mineral springs throughout Anatolia is evidenced by their number and location in the different Vilayets. Of the 112 thus known, Erzerum has 3, Angora 14, Sivas 10, Marash 3, Mamuret-ul-Aziz 5, Bitlis 5, Van 3, Trebizond 3, Smyrna 26, Biga 3, Brusa 27, Kastamuni 5, Constantinople 2, Konia 2, and Adana 1. It is probable that numerous others will come to light with the extension of mining and of transportation.

*Brusa.*—The best-known and most celebrated springs in Turkey are located in the region of Brusa, some 90 kilometers south of Constantinople and connected with this metropolis by rail and steamer. A German writer is responsible for the statement that if Brusa were in Europe, it would be a watering resort of the first rank. These springs, like those of Tiberias, were well known in Roman times and much frequented by "high society" of that period. Emperor Justinian erected a palace in their neighborhood in the sixth century, and one of the present-day installations dates back to the time of Suleiman the Magnificient, in the early sixteenth century. To-day five of the springs are equipped with proper installations, including individual houses with spring water piped in, and are visited annually by thousands of health and pleasure seekers.

It has been suggested that the electrification of the Mudania-Brusa Railway, which is rendered easy by the presence of waterfalls in the neighborhood of Brusa, together with the inauguration of a modern ferry service connecting Mudania with Constantinople, would make it possible for Brusa to rival Karlsbad as a health resort, the waters of the two places being greatly akin medicinally.

Analyses have shown the Brusa waters to contain varying quantities of calcium bicarbonate, sodium bicarbonate, sodium sulphate, aluminium sulphate, calcium sulphate, magnesium sulphate, sodium

Digitized by Google

hydrochlorate, sulphuric acid, carbonic acid, calcium bicarbonate, bicarbonate of iron, potassium chloride, magnesium chloride, calcium chloride, silica, and nitrogen. Temperatures vary between 111° and 198° Fahrenheit.

*Izmid Gulf region.*—After Brusa the springs most visited are those of Yalova, on the southern shore of the Sea of Marmora at the entrance to the Gulf of Izmid—easily included in a Mudania-Constantinople ferry service. Here exist a sanitarium and a casino, in connection with nine springs, whose temperatures vary between 140° and 159° Fahrenheit. An analysis of the gas rising from these springs has disclosed 97 parts of nitrogen and only 3 parts of oxygen.

Other springs of local fame include Tuzla, on the north shore of the Marmora, near the entrance to the Gulf of Izmid, and Ilija, some 15 kilometers southeast of Geuvch, eastward from Lake Iznik.

*Smyrna and Adana.*—In the Smyrna region a remarkable group of springs exists near Ala-Shehir, on the railroad extension from Smyrna to Afion-Kara-Hissar, from which bottled water has long been sold. Farther to the southeast, and about 10 kilometers north of the junction where the Denizli branch leaves the Smyrna-Aidin Railway extension, are the springs of Pambuk-Kalesi, known to the ancients under the name of Hierapolis.

Mention should be made, also, of the Bozanti springs in the mountains 65 kilometers northwest of Adana, where the picturesque scenery holds out a particularly cordial invitation for the establishment of watering resorts.

*Angora and eastward.*—The waters of the Shorba (Chorba, or Yaban-Abad) springs, 43 kilometers north of Angora, have been compared to those of Vichy in France.

Farther northeastward are the springs of Havza (Kavza, or Khavsa, 38 kilometers northwest of Amasia), called by the ancients "Thermae Phazemonitarium," where still exist numerous traces of the old installations. About 6 kilometers west of Trebizond are the springs of Kisarna, exploited for their excellent table water, of which 25,000 to 30,000 bottles are sold annually.

### EXPLOITATION

The Turkish Government has granted 13 concessions for the exploitation of mineral and thermo-mineral waters, of which only 4 have been worked. In general, the mineral waters of Turkey have not been the object of very thorough investigation. Wherever they exist throughout the country, they are used by the natives without regard to scientific principles. With the exceptions noted, no serious attempts have been made to exploit them, either for profit or for their health-giving qualities.

## OUTLOOK AND NEEDS OF MINERAL INDUSTRIES

The future development of the mineral industries in Turkey depends preeminently on communications, fuel, capital, and labor. Existing railways are inadequate. The Bagdad line and its affiliated Anatolian Railway system, running from Constantinople southeastward through the Syrian frontier to Aleppo and Nisibin, form the spine for a more elaborate system that can touch at least the

Digitized by Google

principal deposits already known and partially worked, and thus pave the way for further discovery and development.

From this railway spine there are already a few such extensions: On the Anatolian Railway (*a*) from Eski-Shehir eastward to Angora (eventually to Sivas), and (*b*) from Afion-Kara-Hissar westward to Ala-Shehir, connecting the "spine" with the Smyrna system; on the Bagdad Railway (*c*) from Adana southwest to the port of Mersina, and (*d*) from Tel-Abiad (midway between Ras-el-Ain and Nisibin) northward to Mardin.

By extending the system from Sivas to Harput and another branch eastward to Erzerum and a branch from Harput to Mardin or to the Bagdad main line, the real mineral wealth of the country would be tapped; the completion of the line from Sivas to Samsun will simplify the movement of these ores to the coast. [Railway projects and constructions under the Republic are mentioned in the section "Railway," under "Transportation."]

It is a question of opening up a country hitherto almost hermetically sealed by its lack of highways. The ancient metallurgy of the region, although active, was usually conducted by individuals on a local scale, whereas modern metallurgy requires more complicated equipment and access to large markets.

Exploitation in many of the richest regions has been automatically restricted also by forest denudation for the purpose of obtaining smelting fuel; but the fuel problem would at once be solved by the railway transportation of coal, of which the country has a generous supply that is now largely inaccessible except where nearness to the sea facilitates shipment. Hydroelectric development also will help the mining industry.

The procurement of capital and labor is a problem that is gradually being solved through stabilization of government and reduction of armament.

Digitized by Google

# MANUFACTURES

In the leading factors of industrial production—nature, labor, and capital—Turkey has been generously favored by nature. Labor, also, has not been ungenerously provided for; the Turkish laborer, though until recently left in a state of backwardness by an antiquated form of government, is a hard and honest worker; the progress he has shown since 1914 along the line of motor operation and repair, for instance, indicates that he is far from lacking aptitude. In the matter of capital for industrial investment, however, Turkey has been singularly deficient, both as to domestic and as to foreign sources.

## INDUSTRIAL DEVELOPMENT PRIOR TO 1922

The lack of native capital and the consequent dependence of the country on foreign capital is discussed in the section on "Banking." One of the principal obstacles to securing foreign capital for the development of native industries prior to 1914 was the fact that customs duties were fixed by international treaty and could not be modified without the consent of the Great Powers.

There was ample reason why Europe should look with disfavor on increases in the Turkish customs duties because, the principle of augmentation once recognized, it seemed quite within the range of possibilities that the Government, in its need of funds, might so tax imports as to seriously impair an interesting and potential Turkish import trade; and the manufacturing interests of Europe had no desire to see that trade vanish. The situation worked a manifest injustice to Turkey through the stifling of industrial initiative and potential manufactures.

Although this selfish jealousy from abroad existed, it is also true that the lack of factories in Turkey was largely the result of local conditions. "Obstacles were always placed in the way of natives or foreigners who attempted to found industries, and * * * imposts of a ridiculous character were levied."

Turkish official statistics for the year 1915 show the following factories in the country, employing labor as indicated.

NUMBER OF FACTORIES AND THEIR EMPLOYEES IN TURKEY IN 1915

| Industry | Factories | | | Total workers |
|---|---|---|---|---|
| | Constantinople | Smyrna | Other cities | |
| Flour mills | 14 | 9 | 10 | 123 |
| Macaroni and pastes | 7 | 2 | ---------- | 100 |
| Sweets, confectionery, tahin-halva | 13 | 5 | 2 | 105 |
| Canned fruits and vegetables | 6 | 2 | ---------- | 85 |
| Beer and ice | 2 | 2 | ---------- | 191 |
| Tobacco | 1 | 1 | ---------- | 2,237 |



Digitized by Google

NUMBER OF FACTORIES AND THEIR EMPLOYEES IN TURKEY IN 1915—Continued

| Industry | Factories | | | Total workers |
|---|---|---|---|---|
| | Constantinople | Smyrna | Other cities | |
| Bricks | 7 | | | 120 |
| Lime | 3 | | | 27 |
| Cement | 2 | | | 245 |
| Cement products | 3 | 1 | | 32 |
| Porcelain | 2 | | 1 | 32 |
| Tanneries | 11 | 3 | 2 | 1,289 |
| Woodwork | 13 | 1 | 1 | 329 |
| Box making | | 8 | | 98 |
| Wool yarn spinneries | 3 | 3 | 7 | 2,358 |
| Cotton yarn spinneries | 2 | 2 | 1 | 1,627 |
| Silk products | 1 | | 5 | 367 |
| Raw-silk products | | | 41 | 2,316 |
| Miscellaneous textiles | 9 | 3 | 1 | 956 |
| Cigarette-paper cutting and cover printing | 11 | 1 | | 370 |
| Printing, etc | 33 | 10 | 1 | 900 |
| Oil extractions | 1 | 5 | 1 | 109 |
| Soap | 2 | 1 | | 102 |
| Valonia tannin | | | | 34 |
| Other chemicals | 3 | 2 | | 27 |

The disposition, by nationalities, of the capital and labor represented by these factories was estimated, as follows:

| Nationality | Capital | Labor |
|---|---|---|
| | *Per cent* | *Per cent* |
| Turkish | 15 | 15 |
| Greek | 50 | 60 |
| Armenian | 20 | 15 |
| Jewish | 5 | 10 |
| Foreign | 10 | |
| Total | 100 | 100 |

The foregoing official statistics evidently take no account of the thousands of small shops, comparable to the village blacksmith shops in the United States, which are scattered throughout the country and which appear to have been included in the following statistics for Asiatic Turkey only, prepared by the Ministry of National Economy for the year 1921:

NUMBER OF INDUSTRIAL ESTABLISHMENTS AND THEIR WORKERS IN ASIATIC TURKEY, 1921

| Industry | Establishments | Laborers |
|---|---|---|
| Textiles | 20,057 | 35,316 |
| Curing of skins | 5,347 | 17,964 |
| Metallurgy | 3,272 | 8,021 |
| Lumber industry | 2,067 | 6,007 |
| Food products | 1,274 | 4,493 |
| Potteries and cement | 704 | 3,612 |

With the exception of certain abortive efforts at manufacturing, made necessary by the World War and the ensuing Turko-Greek War, nothing in the nature of industrial development transpired



Digitized by Google

between 1915 and 1921. On the contrary, military mobilization restricted industry, and the restriction became more severe after 1919 when the Greek occupation of the Smyrna region temporarily severed from Turkey an area rich in developed natural resources and relatively advanced industrially. It is difficult, therefore, to concede that the figures for 1921 represent anything more than very liberal estimates, even after making allowance for the inclusion in them of household spinning, weaving, tanning, tinkering, etc.

## SITUATION UNDER THE REPUBLIC

Since 1921 the industrial situation in Turkey has entirely changed, particularly in the Government's efforts to encourage home production. This has taken three definite forms—the laying of heavy import duties, the extension of state monopolies, and the forced exodus of non-Moslem elements of the population, the latter with profound and far-reaching results industrially.

### STATE MONOPOLIES

In addition to the salt and other monopolies hitherto administered by the Council of the Ottoman Public Debt, the Government during 1924 decided to monopolize the manufacture and sale of alcohol, matches, and tobacco. In the case of alcohol it was arranged that, pending the erection of state distilleries, private individuals may be permitted to operate alcohol factories under Government control, and for two years after opening the factory may employ foreigners as technical experts, but on expiration of this period must replace them with Turks. Under this arrangement the Government early in 1925 invited tenders for the annual supply of 1,100,000 kilos of alcohol for industrial and other uses, delivery to begin April 1 of the same year. Monopolization became effective June 1, 1925.

The match monopoly became effective and private sale therefore abolished on February 28, 1925, with the granting of a 25-year concession for the erection of a factory in Turkey to manufacture and sell matches for the State. The new Turkish company has been created in conjunction with the Belgian "Union Allumetière de Flandres," with 51 per cent of the capital Turkish and 49 per cent Belgian.

On February 28, 1925, also, the State monopoly on tobacco became effective, with the taking over of the property and activities of the former tobacco "Régie." [This action is considered more fully under the section "Agriculture," subdivision "Industrial and medicinal plants."]

### ATTITUDE TOWARD CAPITAL

The state of affairs under the Empire, by which Turkish manufacturing enterprises were discouraged, is altered under the Republican régime. The policy of protectionism inaugurated, however, is generally conceded to have imposed import duties higher than is justified by the industrial situation. It is obvious that Turkey must traverse a period of transition before a native industrial organization can be created, and up till now protectionism has not proved an irresistible attraction to foreign capital.

Digitized by Google

The situation as regards capital is undefined and is affected by a number of considerations, notably the lack of definite assurances as to the new Government's attitude toward its inherited debts and as to its future fiscal policy. The situation has not sufficiently developed to date to make it absolutely clear that the Government will not, beset as it is by perplexing financial problems, pursue a policy of exaggerated taxation. Capital is, therefore, naturally reluctant to commit itself.

As a step in the right direction, however, the Government has passed a "stimulation of industries" law. This law provides exemption from land tax, personal income tax, employees' income tax, and customs duties on raw materials not obtainable in Turkey, for all factories employing motive power to the extent of not fewer than 5 horsepower and paying for not fewer than 750 days of work per year. The exemption was extended in April, 1925, to include the octroi tax on all materials for industrial and State-monopoly enterprises. The results of the policy thus inaugurated are still in the future.

## EFFECTS OF NONMOSLEM EXODUS

The significance of the defeat of the Greeks behind Smyrna, accompanied by the exodus, not only of the Greek military and civil forces, but also of native Greeks and Armenians and more recently of Jews, can best be grasped by referring to the factory figures given previously. These show that the Greeks, Armenians, and Jews in 1915 were estimated to furnish 75 per cent of the capital and 85 per cent of the labor involved in Turkish industries.

For example, prior to the Greek defeat there were in the Vilayet of Smyrna (which included the present-day Vilayets of Smyrna, Aidin, Saruhan, Denizli, and Mentesheh) 3,315 factories and workshops of every description, employing about 22,000 laborers. Of these shops, 2,425 were Greek, 858 Turkish, and 32 Armenian, Jewish, and foreign. Of the laborers, 17,000 were Greek, 3,250 Turkish, and 1,750 Armenian, Jewish, and foreign. Even after allowing for the mechanical equipment abandoned to the Turks by the departing non-Moslems, the picture remains somewhat dreary, for the emigration of labor leaves a void that will prove difficult to fill.

Unfortunately, the Moslem elements being received from Greece under the exchange of populations convention are almost exclusively agricultural and for some time will be capable of assistance only to the tobacco and other agricultural industries. Already the Greek emigrants from Turkey have established in their new home in Greece a carpet-weaving enterprise that has offered the Turkish industry such rivalry that Turkey has forbidden the exportation of carpet wool.

Turkey is thus reaping industrially the whirlwind, the seeds of which were sown by its former rulers. Social and political injustice made the Greek and the Armenian undependable as soldiers and statesmen and dictated that they should become artisans and tradesmen, catering to the needs of their Moslem superiors. This system having developed Greek and Armenian separatism and race consciousness to a point where these races became a political menace, there remained no remedy but their departure. But in departing

Digitized by Google

they are taking with them material portions of the country's equipment for industry and commerce, which in the modern world are highly important factors in national life.

Politically, the sacrifice is probably worth while, especially from the point of view of the Turk. It involves, however, a period of bitter hardship during which Turkey will have to create an economic organization out of a mass of raw labor and almost nonexistent capital. The Turks are setting bravely to work, and a prominent feature of every concession granted or proposed has been the establishment by the concessionary company of industrial schools for Moslem workmen and their children. There is also the stipulation that all officials and workmen shall be Turkish subjects, except where technical skill requires an outsider during the period necessary for training a Turkish understudy to carry on the work. To date, this merely means a realization by the Government of the country's shortcomings. The accomplishment of definite results will require time and patience.

### LABOR CONDITIONS

Under these circumstances, it is natural to expect that working conditions in Turkey should be elementary. In fact, Government regulation of the conditions of labor has not commenced. Sanitation, lighting, fire prevention, working hours, employment of women and children, etc., are left for settlement to the laborers and their employers, except that the law provides a compulsory holiday of 24 hours per week. There is neither industrial insurance nor minimum wage regulations.

*Wages.*—A foreman or skilled employee receives the equivalent of $50 to $75 per month, and the wages of other laborers is sometimes as low as $3 per month. The laborer, although in general industrious and reliable, is usually illiterate and wasteful and not particularly disposed toward progress.

*Unions.*—There exists a Turkish Union of Workmen, but it has accomplished little to date and is viewed by officialdom with some suspicion, perhaps because of the proximity of Russia and the frequent discovery of Russian propagandists in the country.

*Unemployment.*—At the present time unemployment is epidemic throughout Turkey among both skilled and unskilled laborers, and quite a few are emigrating to North and South America in search of work. Estimates, which can hardly be considered reliable, place the number of persons at present employed in Turkey in industry and public works at approximately 100,000.

Activity is confined largely to railway men, stevedores, porters, seamen, garage men, tobacco handlers, crate makers, fruit packers, brick and cement workers, brewers, electrical men, textile workers, telephone and telegraph men, wood and leather workers, general repair men, and road and railway construction laborers.

## INDUSTRIES IN OPERATION

### TEXTILE

The manufacture of textiles throughout Turkey is on a modest scale. Statistics (already mentioned as of doubtful value) show the following figures for the year 1921:

Digitized by Google

NUMBER OF TEXTILE FACTORIES, SHOPS, AND WORKERS IN TURKEY, 1921

| Industry | Factories and shops | Workers |
|---|---|---|
| Cloth (cotton and wool) | 5,897 | 6,742 |
| Carpets and rugs | 3,067 | 8,838 |
| Horsehair cloth | 810 | 1,687 |
| Hemp rope | 435 | 4,309 |
| Shawls, "Chayak" and "Aba" | 550 | 1,173 |
| Silk | 56 | 1,584 |
| Silk weaving | 152 | 675 |
| Manufacture of girdles, "Alaja" and "Peshtemal" | 2,799 | 3,791 |
| "Dokuma" cloth | 5,567 | 4,786 |
| Linen manufacture | 380 | 1,110 |
| Fabrics (miscellaneous) | 30 | 30 |
| Total | 20,057 | 35,316 |

In considering the present situation the above figures may safely be divided by two, because of the dispersal of the non-Moslem elements who were active in textiles.

*Cloth.*—Textile efforts, since the introduction of machinery in Europe, have been confined in the main to primitive needs and in general to the production of the rough cloths which enter into the costumes of the poorer classes. This production has not in recent years competed to any appreciable extent with the trade in imported cotton and woolen goods, and the tendency has been toward decline as occidental manufacturing and sales methods have improved and as the local population has adopted occidental dress in increasing measure. The native fabrics, formerly famous even in the markets of Europe, are therefore of little interest except to the student of racial costumes.

More important, however, are the attempts to manufacture woolen, cotton, and silk goods locally by machinery. There is a woolen-cloth factory operated by private enterprise near Constantinople which, working only part time, does a considerable business in cloth for the peasants and the soldiers, although the machinery is old and in bad condition. Another similar factory at Izmid is owned by the Government, but has been closed for four years.

Before the World War, 12 silk-spinning mills were in operation in the Brusa region, but only 3 or 4 of them are working at present. The industry has been seriously damaged by the destruction of mulberry trees and by the disappearance of the Greek and Armenian laborers. In 1925, however, financial backing from the Government and from Turkish Banks of Industry has encouraged the opening of Brusa spinneries, the founding of a £T200,000 textile mill, and the formation of a commission to devise means for restoring the local silk industry.

Cotton mills were relatively active at Adana and Smyrna and produced an inferior quality of sheeting which satisfied the peasant class, but these mills have suffered a very pecarious existence for a long time. Efforts are now being made to revive them, it being the hope of the Government to develop the whole textile industry to a point where imports from abroad can be dispensed with. As a part of this general program, the Assembly in April, 1925 (law No. 627, article 56) authorized the Government to take over the textile factories at Herekeh and Adana and the factories making military fabrics other than for munitions.

Digitized by Google

*Rugs.*—The Turkish rug industry is frequently confused by the inclusion of Persian, Caucasian, and other Central-Asiatic rugs, because Constantinople is the most accessible center and one of the most renowned for the sale of all these rugs. Turkish rugs, however, are quite distinct from the others and in general less valuable, the use of modern dyes having penetrated Turkey to a greater extent than the other countries of the East.

Down to 1914 the rug industry in Turkey was flourishing and well organized. Trained designers turned out classical designs; German dyes were used, and the weaving was done by modern machinery under the supervision of competent inspectors. Except at the Herekeh factory (60 kilometers east of Constantinople), a model institution created by Sultan Abd-ul-Hamid for educational rather than commercial purposes, the finished product was not a hand-woven vegetable-dyed oriental rug, but it was noted for beauty of design and coloring and for durability, and commanded a ready sale.

Oriental rugs formerly figured large among the exports from Turkey. In 1922, owing to the disturbed political and economic conditions and to the heavy export tax of £T32 per pood (about $20 per 36 pounds) levied on rugs by the Soviet of the Caucasus, only limited lots of Persian, Caucasian, and Turkoman carpets and rugs arrived in Constantinople. Some 12,000 bales came through during the last six months of the year, mostly Iran runners, Mosuls, Gorevans, and Tabriz weaves. Larger assortments of Bokharas, Afghans, and Baluchistans arrived via the Persian Gulf, and thus helped to maintain the stocks of the local market. During 1923 arrivals were relatively small and trade was inactive.

This industry was almost destroyed by the Turko-Greek War and the subsequent expulsion of the Greek population, which had been particularly active in it. The present situation seems to indicate that the ancient, laborious manufacture of rugs by hand loom is about to disappear permanently from Turkey unless it can be stayed by the recent law (No. 623), passed April 16, 1925, exempting from the "temettu" tax all artisans who are skilled in hand weaving and dyeing. Ghiordes, Ladiks, and Kulas are rare, and Mujurs, Kir-Shehirs, Bergamas, Meles, Yuruks, and similar weaves appear to be growing scarcer. Whether the machine-made rug will be revived in Turkey is a question which only the future can answer.

*Carpets.*—The native carpet industry of Turkey is languishing. Reports from Smyrna estimate the production for 1923 at about 25 per cent of that in 1921 and exportation at 35 per cent. In a normal year the Turkish domestic output of various weaves of rugs was valued at about $3,000,000. Most of the weavers in the interior, many of whom were Armenians, have disappeared; this is particularly true of the Kaisaria (Caesarea Mazaca) district, where a prosperous silk-rug industry had grown. In an effort to revive the almost abandoned carpet industry, the Turkish Government has set aside certain funds for the erection of three spinning mills, one each at Sparta, Kaisaria, and Kir-Shehir, to provide the thread used in carpet weaving in these districts. The trade in Persian carpets is being stimulated by a reduction in the coefficient of multiplication for their customs duty from 12 to 1.

Digitized by Google

*Embroideries and laces.*—Turkish embroidered goods were formerly a leading article of export, but are apparently disappearing with the Armenians, who were the principal producers. An attempt is being made by the Turkish Red Crescent Society to revive production, and to this end a number of shops have been opened where wall pieces, cushion covers, doilies, bedspreads, scarfs, etc., of ancient design are being copied. Philanthropic societies of other races also maintain shops, where they keep women and girls employed in turning out these articles for sale for charitable purposes. Production, however, is far below its former level, when every other household was putting out a considerable quantity of embroidered goods and cotton lace every year.

*Other textiles.*—Other textile goods include Persian prints for wall and divan coverings and cloths of fanciful design for lamp shades and inexpensive decorations. The output is relatively unimportant. Special mention should be made, however, of the Brusa towelings, kimonos, and headkerchiefs of silk and cotton mixed, artistically made on hand looms and embellished with embroidery.

## LEATHER

### TANNING

There was a time when Constantinople rivaled Tripoli, Tunis, and Algiers in the production of "shagreen" leather; but like so many other oriental industries, this also has fallen into desuetude in consequence of the influx of European manufactured goods.

Turkish official statistics show 760 tanneries in the country in 1921; but these figures are misleading, for they class as a tannery each one of several hundred small establishments hardly entitled to such a pretentious rating. The situation in 1924 finds actually 7 important tanneries in Constantinople and 5 in Smyrna, in addition to some 200 or 300 of the small establishments already referred to. The Smyrna tanneries have only recently resumed operations after a long period of idleness, and one of those in Constantinople is operated by the Ministry of National Defense for military purposes.

The chief output of the large tanneries is sole leather. In 1913, the last reasonably normal year, the domestic output of sole leather amounted to 1,565,121 kilos and represented about 40 per cent of the total domestic consumption. Little attention is given to light skins (sheep, lamb, goat, and kid) which still are largely exported, but efforts are concentrated on hides, the exportation of which is forbidden. The industry has made appreciable progress since 1918, notably in Constantinople, and gives promise of further rapid development under protectionism, as hides constitute a raw material readily accessible and easily workable.

Tanning materials, however, are still principally imported, although Turkey is richer in the raw components of these materials than the majority of the countries from which they are bought. The reason is to be found in the lack of capital and technical personnel to produce tanning materials locally in quantities sufficient for the domestic needs. Before the war Turkey exported some 55,000 tons of valonia per annum.

Digitized by Google

### SHOEMAKING AND OTHER LEATHER WORK

Official statistics claim that in 1921 there were in Asiatic Turkey 3,958 shoe factories employing 5,596 men. It would be safe to add another 800 shops and 1.200 men for Constantinople and the other Provinces of European Turkey. These figures evidently include every description of shoemaking establishment, from the sidewalk cobbler who makes his crude repairs while his client stands on one foot in the street, to the small factory employing some 50 men.

To form a fairly correct idea of the situation in 1924, it must be considered that about 80 per cent of the people formerly engaged in this industry were Greeks and that these have disappeared, except in the city of Constantinople. It would, therefore, be prudent to reduce the above figures by about 60 per cent.

Very little machinery employing other than foot and hand power has been introduced to date; but the use of machinery is extending, as the present duty on imported shoes has placed them beyond the reach of all but a limited clientele of means.

It is estimated that about 1,000 persons are employed in the making of purses, handbags, harness, and miscellaneous leather articles.

## FOODSTUFFS AND TOBACCO

### FLOUR

The milling of flour is the most widespread industry in Turkey. Almost every village has its small water mill, and in Constantinople, Smyrna, and other large towns there is a fair number of relative modern roller mills. Nevertheless, imports of flour were heavy until 1923, as the local millers have not succeeded in producing the finer qualities. In 1923, however, the Government imposed such a heavy duty on flour that only a limited quantity of the best grades can be imported. The flour for general consumption is therefore milled exclusively within the country, in considerable measure from wheat imported from the United States, Bulgaria, and Russia, and more recently from Australia and Argentina. The probability is that domestic milling will greatly develop under the system of protection thus inaugurated, and that a wider introduction of modern flour-mill machinery will result.

### CONFECTIONS AND PREPARED FOODS

The Turks are very fond of sweets and have developed their manufacture as an art. One of the most important Turkish firms in any line of business is that of Haji Bekir Zadeh Muhi-ed-Din Effendi, a maker of sweetmeats with an international reputation. The local product is so popular that there is no important demand for imported sweets; however, a considerable business is done in imported chocolate, but not to any considerable extent among the Turkish population.

Among the prepared foods, whose manufacture is growing in importance under protectionism, may be mentioned macaroni, spaghetti, biscuits and crackers, and canned fruits and vegetables.

### VEGETABLE OILS

The extraction of oils from cottonseed, sesame seed, and olives formerly flourished in Turkey. Before the World War there was

Digitized by Google

a mill at Mersina handling 6,000 tons of cottonseed per annum, a small one at Smyrna handling 400 tons, and a large one at the same place just built and capable of handling 40,000 tons. All have since been destroyed. The sesame-seed oil industry likewise has been obliterated and, although Turkey is an important producer of sesame seed, it imports this oil from Marseille for its domestic needs. The highly promising olive-oil industry also has been sadly affected, largely as a result of the destruction wrought in the olive-producing regions by the Turko-Greek War of 1919–1922. Importation of olive oil is insignificant, but the old mills of small capacity, which are found wherever olives are grown, produce barely enough for domestic needs. The vegetable-oil industry is therefore reduced to a shadow of its former importance and, in spite of protective duties favoring the local industry, the country is dependent in considerable measure for its edible oils on France, Holland, Denmark, the United Kingdom, and the United States.

### CIGARETTES

Although Turkish tobacco is world renowned, there are only two cigarette factories in the country, one at Constantinople and the other at Smyrna—both originally the property of the "Régie Co-Intéressée des Tabacs." This private capitalistic organization formerly exercised for the Government a monopoly of the tobacco industry, but ceased to exist on March 1, 1925, when the Turkish Government took over its functions (see "Agriculture," subsection "Tobacco"). Under the Régie the two factories were gradually introducing modern machinery and eliminating hand labor.

In connection with these cigarette factories, mention may be made of a number of small shops which cut and prepare the cigarette paper that is imported from Austria, Italy, France, and Spain. None of these shops is of serious industrial importance, and few use any machinery.

### CEMENT, BRICK AND TILE, POTTERY

*Cement.*—The two cement factories in Turkey, both in the Constantinople area, produce what has been pronounced a good quality of Portland cement. As the output is far from satisfying local demand, the bulk of cement used is imported, principally from Italy, Germany, Austria, Russia, and Belgium. The industry is an important one and of great promise, but is badly handicapped by lack of capital.

*Brick and tile.*—Of bricks required for the building trade, Turkey imports only a small proportion, as almost the entire quantity consumed is produced locally. Small brick plants occur throughout the country, and there are three large plants in Constantinople which employ relatively modern methods. Tiles, on the other hand, are brought in from abroad, to the extent of 90 per cent of consumption. The brick-and-tile industry may be said to be growing. Even now the product is in constant demand, and it is universally conceded that extensive building operations must take place in Turkey in the near future.

Digitized by Google

*Pottery.*—Kutahia pottery for centuries enjoyed wide fame. Although it is said that the secret of its coloring and glazing has been lost, the fact remains that Kutahia still produces a certain quantity of glazed tiles and of rare pottery. As a result of the exchange of populations, a very considerable Kutahia-wares industry has sprung up in Greece, to the injury of the local faience industry. To revive this art, the Kutahia Ware Co. was founded in the spring of 1925. The Yildiz pottery factory has been taken over by the Government. [Kutahia ware is also named locally "Kutalia."]

## FURNITURE

Furniture making is an industry which promptly took advantage of the protection afforded by the recently enacted tariff law. The industry was already a relatively important one. As far as Turkey in Asia is concerned, it has been dealt a severe blow by the exodus of the Greeks; but in Constantinople, where the Greek population is largely unaffected by the exchange of populations convention, the industry has improved considerably under protectionism.

Eight factories, of which two may be classed as large, do an active business and successfully duplicate the best patterns of European and American household and office furniture. As lumber is also heavily protected by the present Turkish tariff, it is expected that native furniture, made of native wood, will shortly replace imported furniture altogether.

## OTHER INDUSTRIES AND PRODUCTS

*Shipbuilding.*—Considerable activity is still manifested in boat building, more especially along the Black Sea coast and in particular at Sinop and Inebolu. Sailing vessels of several hundred tons burden are constructed, and with sound workmanship.

*Printing.*—The Turks did not adopt printing until 1728, although it had been introduced into the country in 1556 by the Spanish Jews. Some 100 printing establishments, of which the greater part are in Constantinople, now do an active business of printing books and newspapers in all languages.

*Soap making.*—There are seven soap factories in Turkey, four in Constantinople and one each, modernly equipped, in Aivali, Smyrna, and Edremid. The native soap is good and cheap, and the factories are prospering. They not only compete easily with foreign soap of the lower grades, but are now producing with some success perfumed toilet soap of superior quality. In 1923 there were exported from Turkey 95,715 pounds of soap, valued at £T16,637 ($10,100); soap imports for the same year aggregated 5,900,061 pounds, valued at £T327,273 ($198,655).

*Bazaar goods.*—A survey of Turkish industries must also include mention of meerschaum beads, mosaic necklaces, ivory and alabaster goods, incense burners, perfume containers, braziers, smokers' water-pipes, and similar bazaar goods, the manufacture of which furnishes employment to a considerable number of people and produces in quantity sufficient for export.

*Hat making.*—Manufacture of hats has been stimulated by the recent decree abolishing the fez as the national headdress.

Digitized by Google

# COMMERCE AND INSURANCE

## FOREIGN TRADE

In addition to its usual import and export trade, Turkish foreign commerce has always been complicated, from the statistician's point of view, by the existence of a certain amount of transit trade in articles to and from the countries of the Black Sea basin and of Central Asia. This transit trade has figured as an integral part of Turkish foreign trade in the meager Turkish statistics available; hence these statistics, even if there were not good reason for believing them to be otherwise incomplete, fail to give an accurate indication of Turkey's consumption and production powers.

According to statistics of the period, Turkey imported during the year ended March 13, 1912, goods to the value of about £T45,000,000 gold (approximately $198,000,000) and exported goods to the value of about £T24,500,000 gold (approximately $108,000,000). These figures include, in addition to the transit trade, the trade of Syria, Palestine, Iraq, the Hejaz, Macedonia, and Albania, all since detached from Turkey.

### VICISSITUDES OF 1912–1922

Although the fiscal year 1911–12 was marked by an armed conflict between Italy and Turkey, it is the first pre-war year for which the Turkish Government published trade statistics. Similar publication was continued through the fiscal year 1913–14, but ceased with the beginning of the World War and was not resumed until 1923. Since 1910 the Turkish foreign trade has not seen a strictly normal year. The Balkan Wars disrupted trade in 1912 and 1913, and the World War practically closed the Turkish market from 1914 to 1918 to all outlets and inlets except those provided by an unsatisfactory railway connection with Germany, Austria, and Bulgaria.

The armistice signed at Mudros on October 30, 1918, was followed during 1919 and 1920 by a period of exceptional and artificial prosperity for the port of Constantinople, during which time a most abnormal business was done in both the raw products of Turkey and its neighboring countries and in the manufactured products of the Occident, from which these countries had been cut off for four years.

In 1919 occurred the Turkish nationalist rising in Anatolia, which was followed for three years by the devastating Turko-Greek War. At the same time the demand for manufactured goods in adjoining countries rapidly lessened, notably after the defeat of Wrangel in the Crimea in 1920. Supplies of raw products for export also diminished, and simultaneously there intervened the world-wide deflation which had a particularly disastrous effect on the highly speculative commerce of Constantinople.

A condition of acute business depression naturally ensued. This condition prevailed until the summer of 1925. Although the war



Digitized by Google

in Anatolia was terminated in the fall of 1922, Turkish trade is only now returning to more or less normal lines.

A decade and three years of war has brought untold loss of life and vast destruction of property, territory has been ceded, fortunes have disappeared, the whole economic and financial structure of the State has been shaken; moreover, a large Greek and Armenian element that held the bulk of the trade in its hands has been obliged to seek new fields of endeavor abroad.

## RECENT TRADE, BY COUNTRIES

### BASED ON TURKISH STATISTICS

The Turkey covered by the following statistics for the calendar year 1923 and the first half of 1924 (the most recent data obtainable) is therefore politically, ethnically, territorially, and financially very different from the pre-war Turkey. Furthermore, these statistics cover a period of great depression, were compiled during a period of administrative disorganization, and are consequently far from correct. It is noticed, for example, that Turkey's exports to the United States during 1923 are figured at £T6,749,602, while the consular invoices at Constantinople and Smyrna during the corresponding period show a total of $10,424,463 (or about £T17,000,000 paper.) The tables, as given below, do show with some degree of accuracy the relative importance of the countries that enter into Turkish foreign trade.

FOREIGN TRADE OF TURKEY, BY COUNTRIES OF ORIGIN OR DESTINATION

CALENDAR YEAR 1923

| Country of origin or destination | Turkish imports | | Turkish exports | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| | *Kilos* | | *Kilos* | |
| Italy | 46, 732, 076 | £T28, 352, 941 | 47, 834, 191 | £T15, 200, 671 |
| United Kingdom | 66, 842, 560 | 25, 063, 477 | 50, 006, 887 | 15, 756, 670 |
| France | 32, 214, 596 | 13, 229, 352 | 26, 831, 735 | 10, 504, 218 |
| United States | 70, 919, 859 | 11, 059, 351 | 22, 791, 253 | 6, 749, 602 |
| Germany | 19, 127, 333 | 9, 222, 072 | 11, 810, 420 | 7, 625, 578 |
| Syria | 11, 661, 284 | 7, 880, 087 | 26, 671, 295 | 6, 045, 927 |
| Belgium | 30, 017, 803 | 7, 413, 836 | 6, 554, 178 | 2, 226, 994 |
| Egypt | 23, 398, 958 | 6, 682, 512 | 22, 250, 114 | 2, 475, 185 |
| Bulgaria | 58, 615, 798 | 4, 944, 775 | 5, 223, 407 | 1, 064, 798 |
| Netherlands | 9, 977, 114 | 3, 837, 603 | 9, 857, 306 | 6, 654, 989 |
| Rumania | 30, 531, 428 | 3, 799, 529 | 10, 119, 516 | 728, 170 |
| Russia | 31, 419, 010 | 3, 039, 165 | 8, 181, 991 | 1, 732, 444 |
| Czechoslovakia | 5, 620, 754 | 1, 880, 344 | | |
| Austria | 3, 518, 341 | 1, 284, 750 | 5, 270 | 8, 326 |
| Japan | 800, 522 | 1, 022, 105 | | |
| Greece | 4, 173, 030 | 927, 345 | 16, 754, 067 | 2, 881, 850 |
| Yugoslavia | 610, 177 | 844, 656 | 211, 040 | 84, 775 |
| Persia | 232, 848 | 635, 391 | 137, 587 | 58, 958 |
| India | 1, 440, 077 | 525, 603 | 6, 080 | 4, 798 |
| Switzerland | 200, 804 | 340, 794 | | |
| Iraq | 809, 603 | 266, 743 | 617, 454 | 148, 924 |
| Poland | 89, 777 | 168, 113 | 560 | 1, 680 |
| Hungary | 114, 357 | 21, 702 | | |
| Spain | 25, 309 | 13, 489 | 2, 200 | 1, 128 |
| Other countries | 27, 396, 733 | 5, 764, 704 | 12, 478, 366 | 1, 963, 606 |
| Undefined | 20, 262, 572 | 6, 568, 218 | 89, 752, 937 | 2, 731, 690 |
| Total value in Turkish pounds | 496, 752, 723 | 144, 788, 657 | 368, 097, 854 | 84, 651, 181 |
| Total value in dollars [1] | | 87, 887, 000 | | 51, 383, 000 |

[1] Conversions made at the average exchange rate of the Turkish pound, as follows: For 1923, $0.607; for the first six months of 1924, $0.525.

Digitized by Google

FOREIGN TRADE OF TURKEY, BY COUNTRIES OF ORIGIN OR DESTINATION—Continued

SIX MONTHS ENDED JUNE 30, 1924

| Country of origin or destination | Turkish imports | Turkish exports | Country of origin or destination | Turkish imports | Turkish exports |
|---|---|---|---|---|---|
| | Value | Value | | Value | Value |
| Italy | £T17,736,405 | £T13,740,738 | Greece | £T632,512 | £T2,511,436 |
| United Kingdom | 14,919,432 | 6,445,273 | Bulgaria | 1,645,621 | 742,322 |
| France | 8,899,734 | 8,227,250 | Japan | 1,370,664 | |
| Germany | 7,201,385 | 7,532,501 | Austria | 731,614 | |
| United States | 5,047,978 | 4,000,399 | Persia | 436,336 | 100,740 |
| Netherlands | 2,596,583 | 4,342,374 | Other countries | 2,973,215 | 1,775,089 |
| Syria | 3,337,542 | 2,070,003 | | | |
| Rumania | 4,002,523 | 1,057,349 | Total value in Turkish pounds | 84,668,548 | 56,613,995 |
| Belgium | 3,509,880 | 1,196,693 | Total value in dollars [1] | 44,451,000 | 29,722,000 |
| Egypt | 2,837,109 | 1,956,530 | | | |
| Russia | 3,583,606 | 867,718 | | | |
| Czechoslovakia | 3,206,209 | 47,580 | | | |

[1] Conversions made at the average exchange rate of the Turkish pound, as follows: For 1923 $0.607 for the first six months of 1924, $0.525.

BASED ON FOREIGN STATISTICS

If, as already noted, a study of Turkish trade from the point of view of Turkish statistics is unsatisfactory, a study of it from the point of view of foreign statistics is hardly more satisfactory. Each foreign country uses a different currency, different standards of value, and different points of departure, so that the elimination of confusion is all but impossible. However, the following brief analyses of the trade of Turkey with the more important countries with which it deals, based on the most recent information obtainable from those countries, seem pertinent to this discussion.

*Italy.*—Italy occupies a most favorable position for trade with Turkey. Closer geographically than any other great manufacturing country, and possessing good transportation facilities, this country in 1923 stood first among suppliers of Turkish imports and second among purchasers of Turkish exports, according to Turkish statistics. The most recent Italian figures obtainable (those for the calendar year 1920) show the total value of sales to Turkey in Europe as 309,576,420 lire ($15,479,000); to Turkey in Asia as 159,783,613 lire ($7,989,000). Italian imports from Turkey in Europe during the same period were valued at 68,252,000 lire ($3,413,000); and from Turkey in Asia, at 61,218,933 lire ($3,061,000).

Italy's chief contributions to Turkish consumption include cotton and woolen goods, sulphur, lemons, hats and caps (including about one-half of the fezzes worn), haberdashery, motion-picture films, cigarette and other paper, automobiles, chemicals, macaroni, wines and liquors, and canned goods.

In exchange for these, Turkey supplies Italy with tobacco, seeds, wool, metal, soap, ore, cocoons, and notably large quantities of the low-grade Turkish cotton.

*United Kingdom.*—The United Kingdom during 1923 stood second in the supplying of Turkish imports and first as a purchaser of Turkish exports, as shown by Turkish statistics. British trade in Turkey has been built up by persistent efforts, extending over more than 300 years. A permanent colony of British traders, many of

Digitized by Google

whom have lived in Turkey for generations, is ably assisted by commercial travelers who visit this country at regular and frequent intervals.

Cotton and woolen goods constitute the principal British articles exported to Turkey, amounting in 1921 to £4,244,582, in 1922 to £2,369,847, and in 1923 to £2,771,687; but every conceivable article, from needles to threshing machines, is included in the range of Turkey's purchases in the United Kingdom. On the other hand, Turkish raisins to the value of about £1,250,000 are imported annually by England, in addition to important quantities of mohair, wool, licorice root, ores, and tobacco.

The totals of Anglo-Turkish trade for the years 1921, 1922, and 1923, according to British statistics, run as follows:

| Item | 1921 | 1922 | 1923 |
|---|---|---|---|
| British imports from— | | | |
| Turkey in Europe | £714,812 | £1,457,972 | £1,160,547 |
| Turkey in Asia | 348,857 | 278,487 | 2,000,250 |
| Smyrna | 2,640,017 | 2,155,056 | ---------- |
| Total | 3,703,686 | 3,891,515 | 3,160,797 |
| British exports to— | | | |
| Turkey in Europe | 4,579,850 | 3,407,942 | 3,124,935 |
| Turkey in Asia | 139,476 | 274,764 | 819,390 |
| Smyrna | 1,678,737 | 932,839 | ---------- |
| Total | 6,398,063 | 4,615,545 | 3,944,325 |

*France.*—Among the countries with which Turkey traded in 1923, Turkish figures show that France stood third, both as a source for imports and as a market for exports. French trade with Turkey has always benefited by the activities of French educational institutions in Turkey, which are largely responsible for the fact that, next to the Turkish, the French language is the one most widely known and used.

French official statistics for 1922 (the latest available) show that there was exported to Turkey in that year merchandise to the value of 386,699,000 francs ($31,709,000), and imported from Turkey merchandise to the value of 219,643,000 francs ($18,011,000).

French exports to Turkey include textiles, perfumes, wines and liquors, machinery, sugar, cooking greases, drugs, leather goods, manufactured silks, automobiles and tires, silverware, and articles of luxury.

France imports from Turkey silk products, animal food products, cereals, fruits, skins, tanning articles, fats, seeds, resin, tar, and gums.

*Germany.*—German trade with Turkey was eliminated between 1918 and 1922, during the period of foreign military occupation of Turkey; but by 1923 Turkish statistics show that Germany occupied fifth place as a source of Turkish imports and fourth place as a receiver of Turkish exports. According to German statistics published in the Deutsche Allgemeine Zeitung, March 18, 1925, German exports to Turkey during the calendar year 1924 were valued at 49,200,000 gold marks ($11,710,000), and imports from Turkey at 59,700,000 gold marks ($14,209,000).

Digitized by Google

Germany is taking active measures toward recovery of the ground lost during the period of allied occupation, and numbers of German traders, commercial travelers, concession hunters, representatives of industry, and technical men are now in Turkey seeking the advancement of their own and their country's commercial interests.

To this end the Germans have recently been conspicuously successful in placing in Turkey their chemicals, drugs, and pharmaceutical supplies (including dyes), cotton and woolen cloth and clothing, machinery, tools and implements, hardware, electrical supplies, scientific apparatus, crockery, glassware, porcelain ware, and tinware. They have likewise been active in buying mohair, opium, wool, canary seed, rugs, bazaar goods, valonia, the lower grades of tobacco, and skins.

*Syria.*—The new state of Syria, Turkey's immediate neighbor to the south, following traditions inherited from the days when it formed part of the Ottoman Empire, still does sufficient trade with Turkey to hold the sixth position in the list of nations from which Turkey imported in 1923 and seventh among those to which Turkey exported.

Syria is an important producer of grain and fruits, and sends to Turkey wheat and barley, with apricots and oranges, skins, and rugs—the latter chiefly of Persian origin. In exchange, Syria buys in Turkey the native sesame seed, nuts, tobacco, etc., and considerable quantities of cotton and woolen goods, sheetings, and cotton yarn, largely of occidental manufacture.

Figures from French sources, which appear to cover only the ports of Beirut and Tripoli and therefore neglect the important trade of Aleppo with Turkey, show the following data: Syria's imports from Turkey in 1922 amounted to £Sr756,889 ($1,241,300), and in 1923 to £Sr377,239 ($319,300). Syria's exports to Turkey in 1922 totaled £Sr194,715 ($464,000); its exports in 1923 reached £Sr546,789 ($672,500). [The Syrian pound is equal to 20 French francs, and varies with the franc in exchange value.—*Editor.*]

*Belgium.*—Belgium, ranking seventh as a supplier of merchandise to Turkey in 1923, as shown by Turkish statistics, in 1921 (the last year for which Belgian statistics are available) exported to Turkey goods valued at 60,915,000 Belgian francs (about $4,000,000). During the same year it imported Turkish products to the value of 12,592,000 Belgian francs (about $800,000).

The principal exports to Turkey involved in this trade were sugar, cotton, and woolen cloth, iron and steel products, chemical products, hardware, thread, cement, machinery, tramcars and other vehicles, rails, lead and zinc products, glassware, window glass, mirrors, pottery, and paper products. Belgium also is one of the leading sources of supply for Turkish purchases of specialties, paint, and a variety of table and kitchen ware.

The chief imports from Turkey were fruits (raisins and figs), tobacco, and dried vegetables.

*Egypt.*—Egypt in 1923, according to Turkish statistics, ranked eighth in Turkey's import trade, and ninth in its export trade. Turkey's principal imports from Egypt consist of flour and of Indian and other Far Eastern products, such as rice, and hemp and jute products. Large quantities of Turkish tobacco are sent to

Digitized by Google

Egypt for special treatment and manufacture into Egyptian cigarettes, and Turkish lumber finds an important market in Egypt. According to Egyptian official statistics for 1922 (the latest available), Egypt's exports to Turkey amounted to £E206,604 (about $900,000), and its imports from Turkey to £E881,036 (nearly $3,900,000).

*Bulgaria.*—Before the war, Bulgaria shipped to Turkey every year goods valued at 25,000,000 gold leva (about $5,000,000) and purchased from Turkey to the extent of 10,000,000 gold leva (about $2,000,000). Since the war, Bulgarian trade relations with Turkey have been most fluctuating. Bulgaria's favorable balance of trade with Turkey in 1921 was 18,750,000 gold leva (about $4,000,000), as against 25,900,000 ($5,000,000) in 1922, and 13,750,000 ($2,750,000) in 1923.

The low level to which the trade between these two countries has fallen, particularly with respect to Bulgarian purchases in the Turkish market, is indicated by the following figures from Bulgarian sources: Exports from Bulgaria to Turkey in 1921 amounted to 24,000,000 gold leva; in 1922, to 35,000,000 leva; and in 1923, to 16,000,000 leva. Bulgarian imports from Turkey in 1921 amounted to 5,250,000 leva; in 1922, to 9,100,000 leva; and in 1923, to 2,244,000 leva. (The gold lev has a par value of $0.193.)

The principal articles shipped to Turkey from Bulgaria are grain (chiefly wheat), live animals, cheese, wood, charcoal, woolen goods (edging and cotton and silk woolen mixtures).

Bulgarian imports from Turkey consist mainly of olives, oranges, lemons, sesame, caviar, wool, cotton, wax, raisins, and other dried fruit.

*The Netherlands.*—From the Netherlands there is sent to Turkey considerable quantities of butter and cheese, as well as miscellaneous shipments of food and manufacture products, but the principal exports are sugar, cocoa, rice, and other products from the Dutch East Indies. From Turkey, in return, come tobacco and miscellaneous Turkish raw materials.

*Rumania.*—Rumania exports petroleum products, grain, and lumber to Turkey, and were it not for the Turkish restrictions and high duty on lumber imports, it would enjoy a stronger position in the Turkish market.

Rumania's purchases of Turkish goods are not important, as imports from this source consist almost entirely of transit goods.

*Russia.*—Only general facts regarding Russo-Turkish trade are known. Some Russian petroleum products, grain, and lumber are imported for Turkish consumption. Constantinople is a center of trade in Russian furs, sausage casings, tobacco, caviar, eastern carpets that are often brought by way of Russia, and a number of other products. High port charges and vexatious restrictions, however, have diverted a great deal of this trade into direct shipments to the country of destination and to other transit ports.

Small shipments of miscellaneous Turkish products and more important quantities of foreign manufactures are sent to Russia from Turkey.

Digitized by Google

### TRADE WITH THE UNITED STATES

The United States in 1923, according to Turkish statistics, ranked fourth in the list of nations supplying Turkish imports and fifth among the purchasers of Turkish exports. These statistics do not, of course, include the indirect shipments between Turkey and the United States. For instance, American automotive products are shipped to Trieste and Beirut, where they are assembled and reexported to Turkey. Similarly, American purchases of Turkish tobacco are shipped to Trieste, Antwerp, and Hamburg for manipulation prior to importing into the United States.

United States trade figures for 1921 show American exports to Turkey valued at $25,785,000, and American imports from Turkey at more than $20,143,000. In spite of adverse conditions in 1922. American imports from Turkey increased to nearly $21,683,000, but american exports to Turkey fell to less than $15,981,000. In 1923 American exports to Turkey reached the low level of less than $3,500,000, while American imports from Turkey totaled about $13,008,000. In 1924 American exports to Turkey showed a still further decline to $3,387,000, while American imports from this source increased to $14,582,000.

*Exports to Turkey.*—The American products which find the best market in Turkey include wheat and such other foodstuffs as rice, sugar, glucose, oleo oil, etc.; also, petroleum products and agricultural machinery. There are some 600 American tractors in operation in Turkey. American hand plows predominate in the hinterland of Smyrna, but German rivals are in vogue along the Anatolian Railway. American harvesting machines are giving satisfaction, but threshing machines have proved less successful than the Hungarian make. The few combined harvester-threshers of American make are winning favor. Swiss flour mills dominate the market, but American machinery for the planting, cultivating, and ginning of cotton is leading.

American automobiles, chiefly of one make, continue to rule the Turkish market; but the small types of Italian and French makes are rapidly coming into wider use. Typewriters from the United States are still the most popular; but, like American hardware, which was at one time favorably established, their sale has been greatly affected by the offer of cheaper foreign articles. Canned goods (including milk), rubber products, safety razors and shaving soaps, dental creams, and other special articles are also favorably known.

*Imports from Turkey.*—In the field of imports from Turkey, American tobacco buyers are active and take up the greater part of the Turkish exports of higher grades. Smyrna figs and raisins find their way in large quantities to American ports; rugs (mostly reexported from Persia), mohair, wool, nuts, valonia, sausage casings, licorice root, borax, opium, raw furs and skins also are leading Turkish resources that are subjects of import into the United States.

Such Turkish goods sent to the United States as were declared through the American consulates at Constantinople and Smyrna during the calendar years 1923 and 1924 are listed by quantity and value in the table which follows.

Digitized by Google

TURKISH EXPORTS TO THE UNITED STATES, DECLARED THROUGH AMERICAN CONSULATES

| Article | 1923 | | 1924 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| **CONSTANTINOPLE** | | | | |
| Almonds ... pounds | | | 66,000 | $23,155 |
| Bazaar goods | | $73,331 | | 27,047 |
| Boracite stone ... pounds | | | 3,210 | 118,700 |
| Bones | 2,041,959 | 20,690 | | 17,985 |
| Canary seed ... pounds | 1,412,649 | 47,169 | 1,826,380 | 78,434 |
| Casings ... do | 157,777 | 685,397 | 162,842 | 384,953 |
| Casings ... rings | 443,193 | | | |
| Caviar | 93,008 | 85,992 | | |
| Embroideries | | 50,309 | | |
| Filberts ... pounds | 2,064,259 | 251,258 | 1,268,137 | 250,899 |
| Furs ... pieces | 420,293 | 638,144 | 536,097 | 703,948 |
| Gum tragacanth ... pounds | 86,457 | 41,287 | 27,727 | 10,182 |
| Licorice root ... do | 18,537,520 | 505,862 | | |
| Mohair ... do | 1,177,975 | 567,047 | 862,995 | 363,165 |
| Manganese ore ... tons | 103,266 | 1,343,743 | 203,519 | 3,142,777 |
| Meerschaum ... pounds | 13,890 | 21,106 | 5,010 | 11,063 |
| Opium ... do | 30,170 | 121,820 | 40,868 | 295,608 |
| Peroxide ... tons | 8,930 | 157,664 | 2,116 | 95,653 |
| Personal effects | | 69,657 | | 41,936 |
| Poppy seed ... pounds | 147,553 | 14,626 | 132,990 | 8,320 |
| Precious stones ... carats | 936 | 85,513 | | 52,493 |
| Provisions | | 69,871 | | 133,636 |
| Rugs ... square feet | 262,958 | 1,381,796 | 2,186,294 | 1,436,307 |
| Sheepskins ... pieces | 93,529 | 53,307 | 195,695 | 138,083 |
| Slippers ... pairs | 554,589 | 172,493 | 271,211 | 82,935 |
| Tobacco ... pounds | 224,763 | 277,384 | 103,210 | 119,908 |
| Valonia ... tons | 2,028 | 81,499 | 562 | 22,505 |
| Walnuts ... pounds | | 39,578 | 14,520 | 4,831 |
| Wax ... tons | 19 | 7,850 | 18 | 11,533 |
| Wool ... pounds | 946,551 | 171,501 | 1,128,180 | 263,828 |
| All other articles | | 64,247 | | 57,958 |
| Total | | 7,100,141 | | 7,897,842 |
| **SMYRNA** | | | | |
| Emery ore ... tons | 2,453 | 72,438 | 6,879 | 82,066 |
| Fruits: | | | | |
| Figs ... pounds | 19,299,275 | 983,124 | 23,505,738 | 1,131,421 |
| Raisins ... do | 1,263,946 | 122,734 | 1,884,421 | 140,867 |
| Licorice root ... do | 21,617,410 | 806,691 | 24,160,436 | 600,750 |
| Licorice paste ... do | 54,183 | 5,689 | 422,780 | 45,019 |
| Mohair ... do | 67,970 | 20,415 | | |
| Nuts, pignolia ... do | 15,490 | 2,947 | 153,278 | 24,130 |
| Opium ... do | 1,600 | 10,701 | 5,738 | 38,442 |
| Oriental rugs ... square yards | 13,197 | 67,310 | 39,383 | 165,116 |
| Skins, fox, goat, rabbit, etc ... pieces | 28,947 | 18,547 | 36,893 | 20,618 |
| Tobacco ... pounds | 1,591,122 | 1,006,525 | 7,959,115 | 4,395,424 |
| Valonia ... do | 6,677,421 | 179,237 | 10,486,857 | 118,504 |
| Valox (valonia extract) ... do | 294,400 | 15,549 | 704,560 | 36,300 |
| Wool ... do | 124,861 | 19,136 | 207,908 | 30,663 |
| All other articles | | 27,847 | | 16,547 |
| Total | | 3,358,890 | | 6,845,867 |

## RECENT TRADE, BY COMMODITIES

A much more instructive method of arriving at a concept of Turkish trade is through the consideration of individual commodities that enter into the country's imports and exports, as shown in the following figures taken from official Turkish sources.

Digitized by Google

## Foreign Trade of Turkey, by Commodities

### CALENDAR YEAR 1923

| Commodity | Imports | | Exports | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| | *Kilos* | | *Kilos* | |
| Live animals | [1] 145,258 | £T2,228,785 | [1] 356,569 | £T2,500,821 |
| Animal products and fish | 5,006,706 | 2,557,313 | 7,477,224 | 2,441,726 |
| Cereals and their products | 161,408,351 | 14,642,731 | 18,497,862 | 1,632,458 |
| Fruits and vegetables | 19,625,423 | 2,071,952 | 74,466,442 | 20,833,387 |
| Colonials and sweets | 54,075,641 | 15,094,098 | 1,199,445 | 256,068 |
| Alcoholic beverages and mineral waters | 2,400,918 | 632,127 | 151,201 | 53,753 |
| Vegetable oils | 3,251,527 | 1,501,907 | 4,792,750 | 1,622,527 |
| Tobacco and tombac | 185,094 | 188,580 | 24,524,025 | 20,482,517 |
| Seeds, plants, and fodder | 1,796,812 | 101,213 | 11,744,262 | 581,126 |
| Animal skins and waste | 3,245,030 | 1,723,926 | 3,994,548 | 1,506,584 |
| Leather and leather goods | 2,477,218 | 3,771,441 | 709,161 | 1,202,931 |
| Manure | 3,507 | 408 | 982,084 | 6,949 |
| Wood and wooden products | 8,473,971 | 944,691 | 26,383,883 | 1,051,189 |
| Paper and printing | 14,175,975 | 3,168,594 | 3,327,508 | 679,248 |
| Cotton and cotton goods | 25,030,070 | 53,939,768 | 9,915,359 | 6,701,193 |
| Linen, hemp, and other spun vegetable-fiber goods, except cotton | 6,193,649 | 2,594,512 | 592,662 | 182,744 |
| Silk and silk goods | 111,225 | 754,718 | 232,814 | 2,055,392 |
| Wool and woolen goods | 2,600,964 | 8,897,277 | 6,730,107 | 8,214,553 |
| Readymade clothing | 811,733 | 1,777,020 | 26,168 | 68,185 |
| Rubber and oilcloth goods | 1,593,227 | 2,044,879 | 110,434 | 30,824 |
| Fuels | 63,242,025 | 1,444,696 | 103,121,488 | 1,590,353 |
| Glass, glassware, and porcelain | 17,272,409 | 2,278,706 | 5,586,184 | 268,799 |
| Metals | 33,991,651 | 7,750,966 | 19,501,518 | 2,179,532 |
| Machines and tools | 2,637,768 | 1,336,478 | 302,128 | 130,863 |
| Vehicles and boats | 612,947 | 686,239 | 215,381 | 86,405 |
| Watches and scientific instruments | 235,558 | 575,509 | 46,296 | 90,356 |
| Industrial oils, soap, and candles | 49,696,214 | 6,530,104 | 285,422 | 115,035 |
| Explosives | 1,553,774 | 884,637 | 864 | 612 |
| Paints, chemicals, and other pharmaceutical products | 13,361,717 | 3,460,503 | 32,704,834 | 7,155,745 |
| Other miscellaneous products | 1,681,519 | 1,304,879 | 10,475,800 | 929,301 |
| Total value in Turkish pounds | 496,752,723 | 144,788,657 | 368,097,854 | 84,651,181 |
| Total value in dollars | | 87,887,000 | | 51,383,000 |

### SIX MONTHS ENDED JUNE 30, 1924

| Commodity | Imports | Exports | Commodity | Imports | Exports |
|---|---|---|---|---|---|
| Live animals | £T774,856 | £T545,087 | Ready-made clothing | £T1,060,983 | £T54,620 |
| Animal products | 628,602 | 2,574,432 | Rubber and oilcloth goods | 712,033 | 10,968 |
| Cereals and their products | 11,149,885 | 911,218 | Fuel | 641,484 | 1,441,688 |
| Fruits and vegetables | 1,096,946 | 9,438,827 | Glass, stone, and earthenware | 1,548,914 | 354,436 |
| Colonials and sweets | 8,590,971 | 1,361,196 | Metals | 5,619,610 | 2,110,736 |
| Alcoholic beverages and mineral waters | 104,163 | 21,995 | Machinery and tools | 2,039,064 | 54,651 |
| Vegetable oils | 1,543,217 | 233,111 | Vehicles and boats | 750,152 | 47,235 |
| Tobacco and tombac | 238,017 | 17,264,961 | Clocks and scientific instruments | 427,883 | 41,463 |
| Seeds, plants, and fodder | 29,402 | 879,676 | Mineral oils and greases | 2,992,742 | 96,561 |
| Skins | 907,539 | 1,163,966 | Explosives and inflammables | 219,781 | 10,405 |
| Prepared skins, leather and hides | 2,090,454 | 1,288,572 | Colors, dyes, and chemicals | 2,288,181 | 3,287,871 |
| Manure | 6,809 | 53,762 | Unenumerated articles | 843,907 | 404,358 |
| Wood, woodwork, brushes | 319,975 | 548,169 | Total value in Turkish pounds | 84,668,548 | 56,613,995 |
| Paper and printing | 1,926,323 | 2,026,128 | Total value in dollars | 44,451,000 | 29,722,000 |
| Cotton and cotton goods | 28,289,277 | 4,294,193 | | | |
| Flax, hemp, and other spun vegetable-fiber goods except cotton | 1,701,694 | 115,570 | | | |
| Silk and silk manufactures | 608,946 | 734,906 | | | |
| Wool and its manufactures | 5,516,738 | 5,243,234 | | | |

[1] Number of head.

Digitized by Google

### EXPORT TRADE

Turkey's export trade in specific commodities, so far as information is available, has been included with the production aspects of the individual articles, in the sections entitled "Agriculture," "Minerals and Mining," and "Manufactures." The statistics of exports to particular countries, so far as available, have been included in the general trade data in the preceeding pages of this section.

### IMPORT TRADE

An attempt to deal separately with the important articles of import trade is, however, deemed worth while. For the sake of uniformity and stability, values are expressed, as far as possible, in dollars.

*Cotton goods.*—Cotton goods constitute the principal article of import into Turkey. Great Britain holds its traditional lead, but is rather closely followed by Italy. Flannelettes, drills, velvets, zephyrs, prints, etc., of Italian origin are now well introduced, but Italian manufacturers have proved unable as yet to shake public confidence in the durability of British goods.

It is figured that the Turkish domestic market, as at present circumscribed, is capable of absorbing cotton goods to the extent of some $30,000,000 a year, in spite of the high duty (2,000 piasters, or about $11 per 100 kilos). To this may be added an unlimited quantity in transit, destined for South Russia and the Caucasus and beyond, as soon as these customers shall be free to trade.

The United States captured the cotton sheetings market and then lost it to Japan, because the special Japanese "Dragon" brand, mark "C," is sold at a lower price. American trade in unbleached and colored cloths and in hosiery still holds its own. Of colored and print piece goods, yarn, bleached piece goods, and muslins, the United States furnishes but a small share. Among yarn-dyed goods, American ginghams have a good reputation.

*Flour and wheat.*—Although substantial supplies of flour were gotten by Turkey during 1914, from Russia, France, Rumania, and Bulgaria, this staple was also brought from the United States and Canada, both direct and via Marseille and Trieste. Turkey's total importations of flour during the pre-war years amounted to between $8,000,000 and $9,000,000 annually.

In 1922 the sources of flour for this market, in the order of importance, were the United States, Bulgaria, Rumania, and France. Operating in favor of American flour were its high quality, uniformity of grade, variety of brands, large supplies, and favorable prices. Bulgarian flour, though inferior in quality, had the advantage of prompt delivery in emergencies.

Turkish mills, on account of scarcity of wheat and labor shortage, were unable to compete with foreign flour. This situation, however, was radically modified in the early part of 1923 when the import tariff on flour was raised from 95 piasters (about 59 cents) per 100 kilos to 475 piasters (about $2.95). This heavy duty turned the scales in favor of the home milling industry, and purchases of wheat from the United States, Bulgaria, Egypt, and Rumania replaced the former purchases of flour. [The duty, as of June, 1925, is 1,140 piasters per 100 kilos.—*Editor.*]

Digitized by Google

It is thought that the new flour duty will ultimately prove prohibitive, and that flour importations to Constantinople will be limited to the requirements of the pastry trade, that is, approximately 3,000 sacks per month. On the other hand, shipments of wheat to this market are likely to increase, as Anatolia probably will be unable for several seasons to satisfy the domestic demand.

*Corn products.*—Corn has never, even approximately, attained such a commanding position in Europe's consumption as it occupies in America. During the late war, public lectures were given in France under the auspices of the Government in behalf of corn as a human food that might well relieve the pressure on wheat in those trying days. It was a nation-wide propaganda, sprung from war necessities, but did not perceptibly succeed. More recently, the famine in Russia prompted large shipments of American milled corn as a relief measure. It is thought that sustained efforts of this kind will ultimately break down the hitherto impervious front of Europe against "king corn."

In Turkey, there are signs of yielding. In 1922 about 120,000 sacks of corn flour, mostly American, were imported to Constantinople to be mixed with wheat and rye flour and consumed locally or transshipped to South Russia. A fairly promising trade was being developed in this article when the promulgation of the new protective tariff rendered its further importation impracticable. Corn flour that was paying a duty of 50 piasters per 100 kilos now [June, 1925] pays 600 piasters, or about 100 per cent ad valorem. Cornstarch, however, of British and American origin is successfully sold, and the American article is being introduced in small packages for the grocery trade. During 1922, some 11,000 bags of cornstarch, 90 per cent of it from the United States, were imported into Constantinople.

Belgian and American glucose (corn sirup) has found a place in the Turkish market, and Turkish "halva" makers employ it extensively. Glucose is also widely used in the manufacture of "Turkish delight" and in other Turkish sweetmeats and pastries. Arrivals of glucose from the United States in 1922 amounted to about 5,000 barrels, in addition to a limited supply from other sources. One reason that glucose is making such decided headway is the fact that the tariff on sugar is relatively heavier than that on glucose.

Dextrine as yet has proved a failure in this market, owing to the competition offered by the native "chirich."

Constantinople is the headquarters of the trade in corn products in the Near East. General agencies in this city effectively cover the territory stretching from Belgrade to Aden and from Batum to Patras.

*Rice.*—Rice is to Turkey what the potato is to Ireland. "Pilaf" enters into the daily diet of every Turkish household. Some rice is produced in Anatolia, more especially near Brusa, Angora, Malatia, Harput, and Diarbekir.

It is anticipated that, with the development of irrigation projects along the lines of the German irrigation enterprise near Konia, rice growing in Turkey will spread. Plans have been discussed for the draining of swamps in the region of Lake Appollonia (Abulyond) and Lake Nicea (Iznik). All this region lends itself

Digitized by Google

to the cultivation of rice. So also does the Meander (Buyuk-Menderes) valley, which it is proposed to irrigate after regulating the river, thus reclaiming a million acres of land.

As yet, however, native rice is comparatively rare and expensive, and Turkey buys abroad some $8,000,000 worth annually. Rough estimates give these imports the following sources: Rangoon, 5,000 tons; Siam, 2,000; United States, 1,000; Saigon, 500; Marseille, 500; and the Netherlands, 1,000 tons. During early postarmistice years, rice was imported from Spain, the United States, India, Indo-China, Egypt, and Italy. More recently, owing to the economic depression, only the cheaper grades can be sold in Constantinople. As a result, the Turkish rice has totally replaced the American Blue Rose in that market, and importations are made from Saigon, Bombay, and Egypt.

Under the new tariff, which provides for an import duty of 3 piasters per kilo plus an octroi or consumption tax of 10 piasters, or a total of nearly 100 per cent ad valorem, the oversea rice trade with Turkey will be somewhat impeded and would be almost completely arrested if Turkey could produce rice in quantities sufficient for its needs. Turkish rice, however, is not well cleaned from its considerable foreign matter, while certain foreign rices come ready for the kitchen without even requiring to be washed. This circumstance hampers the native product, more especially as now, through tariff protection, it stands on an even footing with Asiatic and American rice in the matter of price.

*Edible oils.*—The new tariff has vitally affected the importation into Turkey of vegetable and animal oil products. Cotton and soya-bean oils now [June, 1925] are subject to a customs duty of 1,500 piasters per 100 kilos, and oleo oil is taxed 900 piasters per 100 kilos, plus an octroi tax of 80 piasters per kilo. These schedules, levied in the interest mainly of the native olive-oil and cattle-breeding industries, are almost entirely prohibitive, and trade with Turkey in both cotton oil and oleo oil seems on the point of being lost. Soya-bean oil also suffers from the same prohibitive cost as cotton oil.

As the olive crop, owing to the war and the Greek exodus, will prove deficient while native animal fats are rare in the absence of any dairy industry, recourse must be had to cheaper mixtures, such as coconut butter, poppy oil, cotton oil, sesame oil, and local tallow. It is thought that, since the native oils and fats are entirely inadequate and the increased prices must intimately affect every household, the tariff may be modified.

American, French, Argentine, and Australian oleo oil used to be widely employed in Turkey in the preparation of butter imitations, and it will prove difficult to replace. Cotton oil was used in the preparation of salads, in cooking (with or without fats), and in mixture with olive oil to be sold as "pure olive oil." Prior to the war, Russia attempted to compete in this trade with its sunflower oil. Corn oil has not succeeded well in this market, although occasionally employed in soap making; but it may henceforth obtain a wider use as an edible oil.

*Sugar.*—In pre-war years, Turkey relied almost entirely upon Austria and Russia for its large sugar needs. A recent decree in Czechoslovakia, forbidding the exportation of sugar without license, will favor the sugar trade of other countries as long as that decree

Digitized by Google

remains in force. Java and the United States are the principal suppliers. Sugar arrivals in Constantinople during 1922 were as follows: The Netherlands and Java, 34,190 tons; United States, 23,660; Belgium, 3,170; and Czechoslovakia, 2,425 tons. During 1924 and the first half of 1925 the city's sugar imports came mostly from Czechoslovakia and the Netherlands.

The Turkish Government recently increased the import tariff on sugar to 1,885 piasters (about $12) per 100 kilos, which includes a consumption (octroi) tax of 15 piasters per kilo. This step was taken with a view to encouraging the opening of sugar refineries in Turkey. It has been found that soil and atmospheric conditions in the regions of Eski-Shehir and Konia are well adapted to sugar-beet culture, and in the Adana plain some sugar cane is already grown. However, for some years to come, Turkey will probably depend for its sugar upon foreign markets.

*Coffee.*—Another article of first necessity in Turkey is coffee. Constantinople alone requires daily some 150 sacks of 132 pounds each. Its imports for 1922 have been estimated at 60,000 sacks, of which some 40,000 were consumed locally and the rest was sold to neighboring markets. Only a negligible quantity of this coffee came from the Red Sea, Mocha coffee proving too expensive. Rio coffee predominated in the Constantinople market, followed by Santos and Java. American-sold coffee controlled the situation from shortly after the armistice until late in 1921, but in 1922 Amsterdam rose to first rank in coffee shipments, with Dutch and British traders holding the bulk of the trade.

These traders deal with commission agents in Constantinople, to whom they make daily telegraphic offers which are based on the currency and weight of the country in which the broker is located. If quotations come from New York they are in dollars per 100 kilos c. i. f. Constantinople; if from London, in shillings per hundredweight. The rate of foreign exchange plays an important rôle in diverting the business from one center to another. Besides Amsterdam, London, and New York, the ports of Antwerp, Rotterdam, Marseille, and Trieste figure as points for coffee transshipment.

The Turkish import duty on raw coffee has been raised [June, 1925] from 130 piasters to 650 piasters per 100 kilos, or about 500 per cent, and in Constantinople an additional octroi tax of 5 piasters per kilo has been imposed. However, the consumption of coffee in Turkey does not appear to have been reduced as a result of the high tariff and the increased price.

*Lumber.*—A century ago the United States ranked first in the foreign lumber trade of the Near East. Gradually this position was surrendered to Austria, which took the lead and kept it until about 1909, when Scandinavia forged ahead and assumed the dominancy in the Turkish lumber market that it now holds. The cardinal principles applied by Norway and Sweden were c. i. f. quotations, metric specifications, constant and regular deliveries by direct water routes, and minute attention to the fulfillment of contracts.

Russia prior to the war succeeded in obtaining a foothold in the lumber market of Constantinople, and Rumania is likely to be heard from increasingly, in view of the acquisition of Transylvania. The United States has furnished some southern pine for ship-

Digitized by Google

building, usually transshipped at Marseille, and occasionally minor shipments of special kinds of hardwoods, such as oak and red gum veneering for furniture and interior finish. But the bulk of the business (dressed pine in the form of floorings, sidings, weatherboards, boarding, battens, laths, joints, and shooks for the packing of raisins, figs, lemons, and oranges) goes to Scandinavia. It is worth some $5,000,000 a year, and should attain further proportions under post bellum reconstruction conditions.

As already stated, Turkey possesses more than 20,000,000 acres of forest land, and is believed capable of becoming self-supporting in the matter of lumber if adequate methods of timber exploitation are adopted. Under present backward conditions, however, the new tariff, although heavy, does not afford the native lumber industry the required margin of protection; besides, some 88 per cent of the timber acreage is government-owned; and, finally, the lumber belt is deprived of indispensable means of transportation. Consequently, there are no prospects of an immediate revival of the Turkish lumber industry, so that importations must fill the requirements, for instance, in oak planks and boards, dressed oak, maple or birch for flooring, southern pitch pine, and various species of hardwood for interior work, furniture, and vehicles.

In Constantinople, the foreign lumber business is in the hands of local commission agents, who in turn sell to wholesalers, architects, contractors, and even to the Government.

It is to be remembered that conditions involve reconstruction, not only in Constantinople and Anatolia, but also in the Balkans, south Russia, and the Caucasus, where in parts manufacturing has broken down and where the countries, in the present emergency, look to Constantinople for supplies.

*Machinery.*—It has been suggested that, owing to the provisions of the new tariff, it is more apropos to import machinery into Turkey than manufactured goods. This principle applies to nearly every branch of national economy. Hitherto, the Turks have sent their raw materials abroad, to be returned in the shape of manufactures. They now propose to enter the manufacturing business themselves and to develop the natural resources of their country in their own way.

To this end, motive power is required; and since both man power and animal power have become decimated during recent wars, the cry is for oil, steam, gas, or electrical engines for farm, mine, and factory. Besides engines, the country stands in need of all kinds of industrial machinery. It needs tractors for its farms, sawmills for its forests, smelting furnaces for its mines. It needs machinery for the construction of roads, railways, and harbors. It needs machinery for irrigation works, for heating and lighting plants, for telephones, and for tramways.

In all Turkey there is not one up-to-date steam laundry. There are but three ice factories, and two are primitive. Openings exist for woodworking, metal-working, and pumping machinery. The beginnings made in Turkey before the war to manufacture flour, paper, glass, cloth, cotton oil, cement, tiles, furniture, and leather were but harbingers of an industrial era which is sure to dawn upon the country as an inevitable consequence of a quickened national consciousness.

Digitized by Google

Since the outbreak of the war, business in Turkey in machinery, excepting agricultural, has been in abeyance. In agricultural machinery, the chief desiderata are price, efficiency, and simplicity. There are said to be about 750 tractors operating in Turkey. Of these, 600 are American and the rest are Italian, British, German, and French. The demand is also growing for other agricultural machines and tillage implements. The former include reapers and binders and, to a less degree, threshing machines. Among implements may be mentioned plows, harrows, cultivators, and drills. Agricultural machinery and implements are admitted free of duty, regardless of origin.

At present all sales are made against cash, except those made through the medium of the Turkish Agricultural Bank, but it is hoped that conditions may soon change so as to permit of credit being extended to the farmers. It would seem practicable for manufacturers in noncompeting products to unite in the selection of a local dealer and maintain a certain number of experienced tractor drivers in the field, to assist in the indispensable campaign of education. It is also important that measures be taken to have full supplies of spare parts on hand in suitable repair shops.

The opportunities for the development of the Anatolian, Thracian, and adjoining markets for agricultural machinery and implements are deemed inviting. The situation is adversely affected by the absence of highways and railroads and other means of transporting farm produce to the central markets. But this defect is fairly certain to be gradually remedied. In manufacturing and affiliated industrial enterprises in Turkey the key to the situation is the oil engine. The keys to the agricultural situation are the kerosene or gasoline tractor and rural credit.

*Hardware.*—Hardware is not seriously affected by Turkey's new tariff. Entering the hardware field in Turkey, the newcomer will encounter German competition primarily, to which may be added that of Belgium, Czechoslovakia, and Great Britain. Owing to high sterling exchange, British opposition is less to be feared than that emanating from central Europe, where wages are low. For many years Germany has had a peculiar grip on the Turkish market for hardware as a result of direct representation by its own nationals in Turkey.

Turkish statistics give the following estimates of the annual imports of metals and metal ware.

| | |
|---|---|
| Aluminium | $269, 684 |
| Brass and brassware | 212, 387 |
| Copper and copperware | 1, 393, 693 |
| Iron and steel: | |
| Bars and rods | 2, 310, 091 |
| Bedsteads | 335, 621 |
| Implements and tools | 755, 011 |
| Knives, scissors, etc. | 119, 675 |
| Locks and hinges | 332, 163 |
| Nails and screws | 1, 027, 394 |
| Railway rails | 2, 736, 096 |
| Sheet iron | 728, 717 |
| Sheet-iron utensils | 722,562 |
| Iron and steel—Continued. | |
| Safes | $130, 829 |
| Wire | 310, 387 |
| All other articles | 3, 077, 779 |
| Nickel and nickelware | 522, 964 |
| Lead, in sheets and pipes | 252, 375 |
| Tin and manufactures of tin | 1, 146,081 |
| Zinc, sheets and wares | 342, 207 |
| Lamps, metal | 225, 183 |
| All other | 577, 678 |
| Total | 17, 548, 577 |

With any general revival in Turkey, the hardware business is bound to keep step, and under a pressing and growing demand.



Digitized by Google

Exporters should therefore be ready to respond. Lines that should be specially pushed are iron pipe and fittings, oil stoves, kitchen utensils, tools, builders' hardware, wire, structural steel, roofing sheets and plates, iron rails, copper, enameled and aluminum ware, safes, and firearms.

*Coal.*—British coal commands the situation in Turkey. There is no great amount of manufacturing in the country, but steamships and railroads consume appreciable quantities. Household coal is somewhat inferior to the British and American, but tariff protection renders the importation of foreign coal precarious. Owing, however, to political developments in Russia, the Constantinople coal market has acquired fresh importance, and this will be intensified with the realization of that industrial and shipping revival which will follow the final consummation of peace. Annual coal imports by Turkey prior to the war averaged about 500,000 tons.

*Shoes and leather.*—The new tariff on boots and shoes [as of June, 1925] may be summarized as follows, in piasters per 100 kilos: Ordinary (sheep and goat skin), 18,000; other leather, combined with textile materials other than silk, 12,900; luxury shoes, 29,700. The last group, which comprises the ordinary shoes offered for sale in the Occident, appear destined to become too expensive for common wear in Turkey.

Undoubtedly, domestic tanneries and shoemaking shops will feel the stimulus of the new law, and in time expand into shoe factories. As yet, however, there are none in the strict application of the term, and the machinery employed in local shops is almost entirely limited to sewing machines for uppers, manipulated by man power in lieu of steam or electricity. Foreign shoes will continue to be imported into Constantinople in transit for Black Sea markets, but the Turkish demand, already lessened by successful local imitations of foreign styles, is likely to prove insignificant.

The trade in leather will also be rendered difficult by the new Turkish tariff, which has been raised by 5 to 12 times over the rate of 1916. However, pending the development of the native tanning industry, the importation of foreign leathers will probably increase owing to the prohibitive duty on shoes.

*Automobiles.*—With the lifting of the customs barrier between Constantinople and Anatolia, the automobile trade in Turkey received a decided impetus. Buyers from the interior are now in the market for trucks and motor cars to overcome the prevailing lack of transportation facilities. Some 65 per cent of all automobiles and motor trucks running in Turkey are of American manufacture, the rest being Italian, British, French, and German.

Repair shops and garages now exist in Constantinople and have begun to be established in Anatolia. Spare parts can easily be found in Constantinople, and it is believed that this former capital will retain its preeminence as a distributing center for motor vehicles to Thrace and Asia Minor.

The future of the motor car in Turkey is bright, since railroads are scarce. Thus, more cars were sold in Turkey during the first quarter of 1923 than in the entire year of 1922, although import duty and license fee (road tax) have been materially raised. The present specific duty on low-priced motor cars approximates 33 per cent ad

Digitized by Google

valorem. The increased demand, in spite of increased price, is an eloquent witness of the need, and also testifies to the existence of money in the country. Owing to the bad roads and the hilly country, the cars must be built strong and able to take unusual gradients.

*Electrical supplies.*—Although Anatolia, owing to its high altitude and numerous streams, lends itself naturally to hydroelectric development, electricity still is a stranger in the land. Electric light and traction systems exist only in two or three cities, and telephoues are rare outside of Constantinople. It follows that electrical machinery and supplies as yet find but a limited market in Turkey.

Prior to the war, the Germans had the field to themselves, except in the matter of telephone switchboards and instruments which were of American patents. More recently French, British, and Czechoslovak competition has made itself felt; but the Germans still control the market, and have confirmed this by their recent coalition with Turkish capital in the founding of a radioelectrical company in Eski-Shehir for the manufacture of electrical goods.

Electric motors, wirings, irons, radiators, fans, toasting forks, heaters, lamps, etc., are quite common in Constantinople, and the local electric company has undertaken an extensive educational campaign through its "electrical home." With peaceful conditions, it is believed that there will come a largely increased demand for generating plants with their prime movers, electric fixtures and machinery.

*Mineral oils.*—Petroleum has never been produced in Turkey, although prospecting has been repeatedly undertaken on the European coast of the Sea of Marmora and in the region of Erzerum. Both at Constantinople and at Smyrna, Americans have installed tanks, warehouses, and can factories for distribution of petroleum throughout the country, and this service is supplemented by British, Russian, and Rumanian facilities.

The new tariff has increased prices of petroleum products and thereby adversely affected sales, which during 1922 were about as follows:

| Specific product | American interests | Rumanian interests | Russian interests | Other interests [1] |
|---|---|---|---|---|
| | *Gallons* | *Gallons* | *Gallons* | *Gallons* |
| Refined oil | 2,277,160 | 4,491,280 | 3,395,140 | |
| Naphtha | 95,000 | 2,243,270 | 538,400 | |
| Gas oil | | 83,680 | | |
| Fuel oil | [2] 33,336 | | | |
| Lubricating oil, wax, and grease | 182,788 | 87,650 | 545,780 | 263,915 |

[1] Comprising Belgian interests, 109,172 gallons; British, 60,400; Italian, 24,600; French, 11,963; and miscellaneous, 57,780 gallons.
[2] Tons; about 7 barrels to the ton.

Trade in fuel oil naturally has not attained very large proportions, on account of stagnation in all branches of shipping; but some business was done, chiefly with the boats of the United States Shipping Board.

In the case of Caucasus oil, all production is nationalized in the hands of the Soviet authorities and is sold through their trade delegations in London and Constantinople. A considerable quantity of Caucasus oil came into Constantinople in 1922 and 1923 and was sold to local dealers, who in turn distributed it to the trade.

Digitized by Google

*Rubber goods.*—The use of rubber shoes has become increasingly general in Turkey, being favored both by climatic conditions and by the religious customs which require that soiled footwear be discarded on entering a place of worship. The trade is controlled by French, German, Swedish, and British factories.

The development of the motor-car traffic in Turkey renders important the matter of tires for automobiles. At the present time French tires rule the market, with American tires second.

The trade in rubber bath supplies, druggist's supplies, garden hose, belting, etc., is relatively unimportant.

*Miscellaneous articles.*—Other goods appearing to have fair chances in Turkey, but as yet of slight importance as a result of the general backwardness, are canned groceries, biscuits, oilcloth and linoleum, paints, motion-picture films, silk hosiery, alcohol, office furniture, typewriters and office supplies, motor boats, sporting goods, toilet articles (safety razors, soaps, and tooth pastes), drugs and medicines, turpentine, manila rope, binder twine and sacking, harness and saddlery, refrigerators, metal bedsteads, photographic goods, clocks and watches, lamps, lanterns and lighting devices.

## GENERAL CONCLUSIONS

Much has been said and written about the importance of the Turkish market, but in the face of a careful analysis this alleged value becomes somewhat modified. The total population of Turkey is thought not to exceed 7,500,000, and it is not believed that Turkish annual expenditures abroad at present exceed $90,000,000.

### TURKISH DOMESTIC MARKET LIMITED

The market for foreign products must necessarily be limited largely to the coastal towns and to a few inland centers served by railways, and even here the proportion of the population willing and able to pay for European and American manufactured goods is restricted. As the coast and the railways are left behind, the price of such goods becomes prohibitive by reason of transportation charges, and at the same time the financial disability of the people increases in direct ratio to their remoteness of habitation.

Although Turkey is dependent on the Occident for its manufactured goods, in reality it requires none of any monumental importance, and the prospect is that the Turkish Republic will develop a domestic industry before the foreigner can develop an offsetting demand. It serves no useful purpose, therefore, to entertain extravagant notions about the capacity of the Turkish market for absorption of imported goods, and it is worth while remembering that the sale of such goods must be effected on a much narrower margin of profit in Turkey than in the United States.

What the market may develop into is another matter, dependent upon a number of considerations, notably the providing of cheap and adequate internal transportation and the further advance of the people through education and increased prosperity toward a life of enlarged needs. The Government of Turkey, within the limits of its means and its credit, is interested in acquiring sundry technical equipment, particularly supplies for railway, mining, lumbering,

Digitized by Google

agricultural, and motor transportation uses. The individual inhabitant, however, is not yet disposed to take a deep and abiding interest in gramophones, meat cutters, roller curtains, lawn mowers, bathtubs, canned meats, and the other thousand and one articles which the Occident finds indispensable to its daily existence. Such articles are imported, it is true, but only for sale to a restricted urban clientele; the average citizen pursues his life indifferent to the availability of such commodities.

#### RESOURCES AND TRANSIT TRADE THE ATTRACTION

Turkey's principal attraction to the Westerner is not, therefore, the market it offers for his merchandise, but, pending further developments, the raw material it has to sell. Prior to 1914 Turkey sold to the United States $20,000,000 worth of goods annually and took only $5,000,000 worth in return. In the case of European countries, favored by proximity and trade connections established through long effort, it was quite otherwise; in fact, the balance of trade was invariably unfavorable to Turkey.

However, in the likely event of improvement in agricultural methods and more practical attention to the developments of natural resources, the tendency must be toward expansion of Turkish exports, except in years when heavy purchases of technical equipment for public utilities may outweigh the merchandise shipped abroad.

There remains one further consideration, rooted in physiography, namely, Turkey's location across so many vital commercial lines of communication. The access it affords to other lands enhances the importance of the Turkish market far beyond its intrinsic value. So it will be struggled for, and not without valid reason, in the future as it has been in the past, by rival manufacturers in all parts of the world.

## INSURANCE

### FIRE RISKS

Interest in insurance in Turkey, from the point of view of both insurer and insured, centers primarily in fire insurance. Constructions in Turkey are still largely of wood and almost invariably in congested areas. The danger of fire is consequently ever present, and the frequency of large conflagrations is notorious. The property owner is therefore compelled to keep his property fully insured, and the conditions make for greatly increased rates to cover the company's frequent heavy losses. [Effective September 1, 1925, rates and registration fee are greatly reduced on wooden buildings and registration fees considerably lowered on concrete and stone buildings.]

There are no native fire insurance companies in Turkey, in the strict sense of the term. The four so-called native companies are really subsidiaries of foreign capital and under foreign-insurance control.

#### FOREIGN OPERATION PRIOR TO 1923

Up to 1914 there were between 75 and 80 foreign fire insurance companies operating in Constantinople, principally of British, German, and French nationality, although Switzerland, Austria, and

Digitized by Google

Italy also were represented. American insurance companies did not enter the field until after 1918.

These companies maintained a secret association and tariff agreement, and did very profitable business in spite of the losses. An estimate of this business is set forth in the following figures:

| | | United States equivalent |
|---|---|---|
| 1904 | £T62, 653 | $275, 673 |
| 1905 | 107, 221 | 471, 772 |
| 1906 | 81, 543 | 358, 789 |
| 1907 | 62, 285 | 274, 054 |
| 1908 | 181, 526 | 798, 714 |
| 1909 | 89, 185 | 392, 414 |
| 1910 | 65, 780 | 289, 432 |
| 1911 | 632, 753 | 2, 784, 113 |
| 1912 | 150, 745 | 663, 278 |
| 1913 | 139, 384 | 613, 069 |
| 1914 | 66, 650 | 293, 260 |
| 1915 | 163, 458 | 719, 215 |
| 1916 | 96, 245 | 423, 478 |
| 1917 | 117, 592 | 517, 404 |

Following the armistice of 1918 there was an insurance boom which attracted many companies not hitherto represented in Turkey, including a syndicate of 16 American companies. This boom was due to the fact that the military occupation of Constantinople permitted the insurance association to come out into the open and conduct its affairs without interference and also to the unprecedented revival of trade which Constantinople experienced after four years of blockade. The export, import, and transit trade reached proportions that could not be foreseen, and there was simultaneous utilization of every conceivable type of building for warehouse purposes. The demand for insurance rose in proportion to this increase of trade, and rates frequently reached 3 per cent.

### CHANGES UNDER NEW RÉGIME

By the spring of 1923 this state of affairs had completely changed. The Turko-Greek War in Anatolia had terminated with the victory of the Turks and notably with the destruction of the greater part of Smyrna by fire, which heavily involved many of the companies. It was realized that the capitulatory privileges of foreigners, which had afforded tremendous advantage to the foreign insurance companies, could no longer be maintained, and with the approach of the foreign military evacuation thousands upon thousands of the non-Moslem natives, who constituted the principal business elements and the chief clients of the insurance companies, departed or made preparations for departure.

There ensued a business stagnation that was only partly accounted for by the world-wide postwar economic reaction, being the result in large measure of purely local political conditions. On top of all this, there was put into force an insurance law which required insurance companies, besides securing a permit from the Ministry of Commerce, to deposit £T15,000 [raised in June, 1925, to £T100,000, to be deposited in approved bank by August 15]—as a guaranty of good faith; it also made the local representative personally responsible before the law, whereas previously suits, in last

Digitized by Google

resort, had to be brought in the place of domicile of the company involved. With the Government refusing to recognize the validity of the war-risk irresponsibility clauses in the policies covering the Smyrna losses, insurance became unattractive, and all of the British and American companies left the field.

Since 1923 the business, which has been relatively unimportant, has developed to the advantage of the rivals of the British and Americans—notably the French, Belgians, Swiss, Austrians, and Italians, who were little or not at all involved in the Smyrna disaster, who could easily accept the not very onerous conditions imposed by the Turkish law, and who had no fear of ultimate Smyrna suits with little chance of successful outcome in the courts.

It is true that the British and Americans have made considerable efforts along the line of what is technically known as "home foreign business," that is, policies written directly abroad and handled directly from the home offices; but this has not taken the place of the flourishing business formerly done, and the reentry of British and American companies into the market under the normal conditions imposed by law seems likely to be postponed for some time.

## OTHER FORMS OF RISK

Leaving out of consideration life insurance, which occupies a relatively important position in the local field but is greatly hampered by the poverty and ignorance of the great mass of the population, the only other important branch is marine insurance.

Like all the other branches, marine insurance is in foreign hands and flourished until recently. At present it is eclipsed by trade stagnation; Turkish imports and exports, as well as the transit business, have shrunk to a shadow of their former importance. The principal obstacles encountered hitherto by marine insurers has been the unreliability of local agents and adjusters. Rates vary from three-fourth per cent for ordinary risks to 8 per cent for blanket insurance, and dissatisfaction is frequently expressed.

Baggage insurance, burglary insurance, motor-car insurance, etc., are too unimportant to merit special discussion. All of these are offered as side lines, but there is very little business.

Digitized by Google

# BUSINESS PRACTICE

By Edwin A. Plitt, American Vice Consul, Constantinople

Purveying to the Turks is a field of potential richness, even though the present standard of living and the buying power of the people do not approximate those of the Occident, for the country, neglected industrially, is in need of the entire gamut of manufactured products. As yet, however, this need has been felt only in the larger centers of population, whose inhabitants to a certain extent have come in contact with occidental conveniences. The mass of the population, prompted by considerations of both economy and conservatism, clings to the primitive furnishings and implements of an earlier day.

## FOREIGN PENETRATION

### PAST EFFORTS

Under these circumstances the serious efforts at penetration on the part of European business would appear at first glance incomprehensible. In such efforts England, France, Italy, and Germany have led; the latter especially, through a banking policy supported by diplomatic and consular influence, was before the war rapidly advancing toward first place in the Turkish market. France's endeavors after the armistice aimed at a similar goal, as did those of Britain and, on a more modest scale, those of Italy.

These European countries, however, were also attracted to the Turkish market by considerations of investment of capital and discovery of outlets for the energy of technical personnel and labor, so that the actual sale of goods to a relatively small and backward clientele was not the sole inducement. At the same time the manufacturer, faced with the bitter European competition for outlets for the products of industry, was not disinterested in any market, however small. In fact, Turkey's pre-war purchases abroad totaled some $198,000,000 annually—no insignificant sum, notwithstanding the fact that domestic competition seriously diminished individual profits.

### PRESENT CONDITIONS

#### CHANGES UNDER NEW RÉGIME

Since 1922, when Turkey defeated the Greeks in Anatolia and won its complete independence, the situation as regards foreign trade has appreciably changed. In addition to the inauguration of protectionism, the abrogation of the capitulations (treaties under which foreign firms and companies in Turkey enjoyed extraterritoriality and escaped local jurisdiction and, in large measure, local



Digitized by Google

taxation) has done away with the special privileges of foreign business and put it on a footing of equality with local competitors. The resultant taxation has raised the price of imported articles and increased the overhead expenses of operation of foreign companies so that much of the profit formerly realized has vanished.

On top of this state of affairs, a decade of wars has seriously interfered with the production of some of the native raw products and has brought the buying power of the market much lower even than it normally would have been—a situation that can be remedied only by a prolonged period of concentration on agricultural improvement.

Another direct consequence of these wars has been the disappearance, as a result of emigration, deportation, or exchange of populations, of a very considerable non-Moslem element whose wealth, relatively speaking, was heavily out of proportion to its numerical importance.

With these conditions in mind it is evident that considerable effort is required to sell merchandise in Turkey in remunerative quantities, but the venture has proved worth while to the European. At first glance, the prospect is disheartening and perhaps baffling to the Westerner familiar with vastly different sales conditions. A little reflection, however, will convince him that 7,500,000 people, however simple their needs, do require a considerable amount of merchandise and that an ordered attempt to provide this merchandise will ultimately repay the effort. In the face of the ever-growing rivalry for markets, none can be overlooked, and it behooves the exporter to study the situation in Turkey intelligently and with a view to its future possibilities.

### MARKET GATEWAYS

Constantinople is the commercial gateway into Turkey, some two-thirds of all merchandise imported being distributed from this center. This condition is likely to continue, although Smyrna, which in pre-war days was the chief outlet for the export trade and which is favored by a relatively extensive system of railways, should develop rapidly, and although Mersina, in southwestern Turkey, the port for the fertile region of Cilicia, bids fair to assume a position of importance, as does likewise Samsun on the Black Sea.

Being the southeastern terminus of a trans-European railroad, Constantinople is the most accessible of Turkish cities, and its position as the northern terminus of the Anatolian railway system and as the guardian of the straits connecting the Black Sea with the Mediterranean makes it the natural distributing center, both for Turkey and for the countries beyond in Central Asia and for all the States bordering on the Black Sea. It is designed by nature as the center of whatever activity may claim the attention of the Black Sea region.

It is not strange, then, that it should have become the gathering place of the most important bankers, merchants, and shipping men in the Near East. Its harbor facilities and transit warehouses, already fairly adequate, lend themselves easily to indefinite extension as trade develops. Smyrna has not yet recovered from the disastrous Turko-Greek war of 1919–1922, and Mersina and Sam-



Digitized by Google

sun are still ports of the future. All are regional in their importance, but Constantinople is both national and international.

### TRAVEL AND MAIL FACILITIES

The fastest and most direct route to Turkey is by a through express train, equipped with sleepers and dining cars, from London or Paris via Milan. The travel time by this route from Paris to Constantinople is about four and one-half days, and from London five days. Regular steamship service is available from Marseille, Trieste, Piræus, Alexandria, and New York, the transit time being from 2 to 20 days according to distance. Another convenient route takes one by rail via Berlin, Vienna, and Bucharest to Constantza, and from there by sea to Constantinople.

In addition to a Turkish visa, a visa is required for each country traversed. Aliens are required to register with the police within 48 hours of arrival in Turkey and to secure residence permits. This permit once secured, domestic travel is unrestricted; but failure to secure it subjects the delinquent to a fine.

Turkey is an adherent to the postal convention of Madrid. A regular mail service with the rest of the world is maintained, and transit time for first-class mail from London or Paris is about five days.

Telegraph lines linking Constantinople with the various Turkish provincial centers and with foreign countries are controlled by the Turkish Government and operate satisfactorily (see section entitled "Communications").

### LANGUAGE

The language of Turkey is Turkish, an original Turanian dialect greatly enriched by the borrowing of Arabic and Persian words. The language of interracial intercourse is chiefly French, but English, German, and Spanish are fairly widely spoken. Commercial travelers and tourists will find a knowledge of French of great assistance. [Under the nationalist spirit of the new régime, however, strong efforts are being made to require Turkish characters exclusively in all printed announcements intended for the public.—*Editor.*]

## SELECTION OF TRADE REPRESENTATIVES

### UNSUITABILITY OF OCCIDENTAL SALESMEN

The foremost problem facing American manufacturers desirous of securing a portion of Turkey's trade is that of selecting a proper representative. For those who desire seriously to enter the Turkish field, it can be recommended that a native American who is already successfully established in Turkey or an American who is prepared to remain in the country and make a serious study of conditions and business practice in Turkey be chosen. For those who propose only to sell to the retailer, a local representative may suffice. Further, if a native American is chosen he will need the expert assistance of those who, by long residence in Turkey, are acquainted with local conditions. Local market conditions constitute a study in themselves, and the ability to sell goods in the Occident does not mean an

Digitized by Google

ability to sell goods in Turkey. As a matter of fact, the contrary is often true.

At the outset there is the almost insurmountable obstacle of an oriental language; in addition to this, the entire sales procedure is different; and, finally, the man unfamiliar with the country usually breaks down in the matter of patience. It can safely be stated that with only rare exceptions the occidental is linguistically, educationally, and temperamentally unsuited to salesmanship in Turkey, and experience has shown that, except in the case of articles enjoying a monopolistic position, such as petroleum products, he is invariably surpassed by his native competitor, whose knowledge of the language, schooling in local practices, and versatile personality furnish him definite means of carrying the day.

### TURKISH WAYS OF DOING BUSINESS

For instance, a business deal is rarely consummated in Turkey by telephone, although the telephone exists and is being rapidly extended and the service is good. The invariable rule is a personal visit, and the deal may consume from half a day to a month. The man schooled in occidental methods can not easily adjust himself to this state of affairs. Again, the practice of the West is a fixed price, based on cost plus transportation, duty, insurance, etc., and a reasonable profit.

In Turkey, however, the man who attempts to do business along these lines will never make a sale, unless he handles an article which can not be conveniently duplicated elsewhere. His competitor, who is prepared to sell at cost or less, with here and there a sale at a profit varying between 100 per cent and 500 per cent, will undersell him. In short, at every turn the oriental takes the inside track over his occidental rival, in spite of the latter's superior equipment and organization.

The question may well arise as to how the oriental can do business under such a hit-and-miss system. There is, however, a sound reason for his whole procedure. He deprives himself of a cash register, an adding machine, and a typewriter. His accounting equipment is of the simplest, and he makes one employee serve in place of two.

He sets as his motto "Sell." And he sells, practically without regard to cost, although a fair proportion of his sales net him more than a reasonable profit. The result is that he receives a steady stream of liquid cash for current needs; and with his very restricted overhead he is constantly ahead, while his fixed-price rival is expending for costly organization the profits realized from his more or less infrequent sales.

There is another point of difference which plays an important rôle: The occidental rarely works more than 10 hours per day; the oriental, in spite of his reputation for indolence, rarely works fewer than 12 hours and frequently as many as 16. To do business in Turkey, one must compete with this oriental system.

### SUPERIORITY OF NATIVE SALESMEN

Experience has proved that the best way of meeting this competition is by employing a man familiar with the business practice in Turkey. The most successful distribution of foreign goods has, there-

Digitized by Google

fore, been accomplished by the local wholesaler importing for his own account or on consignment, while local branches of foreign houses have frequently, perhaps almost invariably, netted their headquarters either losses or profits of relative insignficance.

In general, importers dispose of their goods at wholesale. Some retailers import merchandise for their own accounts, but only in small quantities. It is from the former that both the Constantinople retailers and the buyers from the Provinces, who periodically visit Constantinople, obtain their stocks.

Those native houses whose reputations have stood the test of time are the bulwark of the manufactured-goods trade in Turkey, because they are free from the interference of a foreign headquarters that is misguided because accustomed to other methods, and because they understand the complications of the local credit system. There are, of course, houses whose business ratings are not very high; and a number with whom "cash with order" is the only safe method of trading. But the number of houses that can be dealt with on usual commercial terms is large, and fairly satisfactory credit ratings can be secured from banks and chambers of commerce.

### RELATIONS WITH THE AGENT

Once satisfied as to the agent's morality and ability and the advisability of extending him credit, the rule should be to refrain as far as possible from interfering with him. His problems are such as can not be solved in the light of Western experience, and so long as he meets his payments regularly no useful purpose can be served by attempting to control the methods of his activities.

Above all, he should not be subjected to arbitrary price changes, based on domestic conditions, and he should be generously assisted in the matter of samples. Catalogues, unless printed in Turkish or French, are of no general value, the official language being Turkish and the language of foreign trade largely French. A nominal tax, usually less than 5 cents, is levied on all catalogues brought into the country.

### PLACE OF FOREIGN BRANCH MANAGER

Emphasis has been laid above on the superiority of the native agent over the foreign branch manager in selling goods. This should not, however, be interpreted as meaning that the foreign branch manager can not under certain circumstances serve a highly useful purpose. Many exporters dealing with Turkey combine an export business with an import business, selling Turkey manufactured goods and buying native raw products with the proceeds. For such a business the foreign branch manager, because of his knowledge of the needs of the domestic market for which he is buying, is just as necessary as the native agent is necessary for the placing of manufactured goods in Turkey.

Such an arrangement has been found very satisfactory. In the first place, it offers the opportunity of covering loss or reduced profits from the sale of manufactured goods by advantageous purchases of native goods. In the second place, it furnishes both the exporter and the local distributer a means of more intimate contact, which is frequently fruitful in the elimination of difficulties and misunder-

Digitized by Google

standings and in the exchange of information, sympathetically presented, which promotes cooperation and better feeling in trade relations. It is particularly effective in such matters of detail as securing proper packing, suitable price inducements, and equitable adjustments of damage claims.

In this connection, the appointment of a foreign agent in Turkey representing a group of manufacturers of noncompetitive products has proved a successful arrangement. For example, one agent established in Constantinople may represent a dozen or more manufacturers of building materials, and establish a depot from which local purchasers will obtain everything from the masonry and steel framework to the paint and interior fittings required for complete erection of buildings. The actual selling of these articles would, of course, be handled by a staff of natives thoroughly acquainted with the local market and its needs.

## COMPETITION AND PROFITS

Turkey's lack of industrial enterprises eliminates the factor of domestic manufacture from competition in its markets. On the other hand, the agents of foreign exporters vie with each other in endeavoring to ascertain and satisfy requirements as to quantity, quality, design, color, and construction. The effort is to supply exactly what Turkey wants, at prices defying competition, for the number of sellers is out of proportion to the number and wealth of the population. The consequence is a struggle in which the cheapest usually survive, cheapness being as yet a much more important consideration in Turkey than quality.

### PRICE CUTTING

Trade cooperation with a view to price maintenance is unknown and impossible, for there is no possibility of so distributing the trade as to guarantee a living for everybody concerned. Hence, price cutting frequently occurs in the Turkish market and often results in the complete withdrawal of merchandise of good quality. Certain traders have by this means forced their competitors to retire. Naturally, as soon as they have gained control of the market, their prices are increased to recover their initial losses. This also has been the favorite way to introduce a new product.

### LARGE VERSUS SMALL SCALE IMPORTATION

There is a keen rivalry of a dozen countries and 10,000 merchants, each hoping to break even. More than one house recently induced to enter this market on a large scale has met with disastrous experiences and has been forced to withdraw, while others have kept their heads above water only by export and special sidelines.

On the other hand, the country's devastation by a decade of wars, as well as its paramount needs of better and more extensive means of communication, public utilities, and municipal improvements, offer opportunities for a large-scale importation of tools, machinery, and miscellaneous manufactures for Government needs. To provide these the Turkish Government pursues the policy of awarding sup-

Digitized by Google

ply contracts by adjudication. However, the ability to aid with capital on the part of the suppliers is often taken into consideration. This is usually the case in awarding construction contracts for which payments are guaranteed by bond issues.

#### PROFITS

In principle, the private clientele can wait; it has always deprived itself of everything but bare necessities. If the trader can not wait, if his success depends upon a quick turnover, he must fail. And he must be prepared at the end of his term of waiting to take a profit which may only poorly reward his effort and patience, for in Turkey offers exceed demands. If prices are high, it is because of freight and landing charges and duty and not because of exorbitant profits.

Occidental merchandise has been offered actively in Turkey since the time of the East India Co., but it is significant that large fortunes usually have been acquired by purveyors to the Government and more rarely by bona fide merchants and mercantile operations or other lines of activity, unless exports were combined with imports.

### SHIPPING METHODS

#### QUOTATIONS

European manufacturers usually quote to Turkey "c. i. f. Constantinople, Smyrna, or Mersina, cash against documents." By this method the bill of lading is forwarded to a bank and can be secured only on payment of the cost of the merchandise. In the case of houses of established reputation this method is safe. It is preferable, however, to require a remittance of 25 per cent with the order, whenever possible, for there is risk of refusal of the consignee to take delivery of the goods in event of price or exchange fluctuations going against him. The consequence of such refusal is either sale of the goods by the bank at a loss for the shipper's account or return to point of origin, both alternatives being unsatisfactory. It is, therefore, better to have the consignee pecuniarily interested in the goods from the outset to an extent that will cover all losses in case of ultimate refusal of delivery.

Because of exchange fluctuations, prices should always be quoted in dollars or pounds sterling.

#### PACKING AND MARKING

Good packing is necessary for goods exported to Turkey, especially those destined for transshipment or for the interior trade. Merchandise consigned to the interior of Anatolia may have to be transshipped at Constantinople for another Turkish port and thence sent hundreds of miles overland to some railhead, from where it may have to be further transported by oxcart or camel to its final destination.

All packages and cases should, therefore, be so constructed as to obviate breakage and pilfering. At the same time, they should be as light as is consistent with safety in order to come within the customs tare allowance of 15 per cent for cases and casks containing articles other than metal. They should also be clearly addressed

Digitized by Google

and numbered, and if it is necessary to specify careful handling, this should be done by use of the French word "fragile."

Exporters should be particularly careful to conform to specifications of their clients in matters of packing, and a very favorable impression is created if strong packing lumber is used, because such lumber, in addition to insuring safe arrival of the goods, is readily saleable, and the money realized from such sale frequently represents an appreciable part of the profit.

### INVOICES AND CUSTOMS TARIFF

Prior to April 1, 1925, consulation of invoices was not required for Turkey, although customs officials had to be supplied with the original invoices of imported goods. Beginning April 1, 1925, however, certificates of origin must now accompany all goods imported into Turkey. These will be issued by Turkish consuls at their place of residence; otherwise, by a chamber of commerce or other local official bureau. This requirement is in accordance with the commercial convention that formed part of the treaty of Lausanne, signed July 24, 1923.

These invoices should indicate the exact weight of every case or package to prevent averaging at the customs; but they should not include, in cases where products are shipped in concentrated forms, any statements as to the ultimate volume obtained by the addition of liquids. Shipments of compounded food products and pharmaceutical supplies must be accompanied by formulæ.

*Customs tariff.*—The present customs tariff constitutes a revision upward of the specific tariff act of March 10, 1916, which became effective September 1 of the same year. The duties prescribed by the tariff of 1916 are subject to coefficients of increase, periodically adjusted, to offset depreciations in exchange rate of the Turkish pound. Accordingly, by a law of July 28, 1920, all duties were multiplied by 5, and this was increased to 12 in the case of a number of items by a law of January 11, 1923, which became effective on March 1 following. Further modifications have prohibited the importation of a large class of articles considered as luxuries; moreover, in addition to the customs duties, provision has been made by law for an octroi, or consumption tax, on a number of articles of prime necessity and for a municipal tax on a great variety of imported goods.

The consumption tax and the municipal tax may not, however, be considered as forming parts of the Government's permanent fiscal policy. They have provoked such a storm of remonstrance from all classes of the population because of their effect on the cost of living that their discontinuance may be expected at any moment. The policy of the Government may be defined as the combining of a tariff for revenue with a gradual extension of protectionism as native industry develops.

## PROBLEM OF CREDIT

### SOURCES OF INFORMATION

Credit is the problem of primary importance for the foreign exporter desirous of securing a permanent footing in the Turkish market. It is a problem presenting numerous intricacies, for nowhere else so much as in Turkey is it so difficult to arrive at the

Digitized by Google

financial standing and morality of a prospective customer. The only rule that the beginner in Turkish trade can follow is to solicit information from his bank or his chamber of commerce.

The information supplied will be an estimate, based on the length of time the customer has been in business and the character of his known operations during that time. These are the only standards which furnish any indication of value, for the almost universal policy in Turkey is to conceal evidence of wealth. Books, therefore, rarely give the information desired, and tax returns, when they can be consulted, give even poorer results. Real-estate holdings also afford only a meager idea as to the status of the holder, for information about mortgages is not readily accessible.

It is necessary, therefore, to take the prospect on his past, after making liberal allowance for error and prejudice in the report.

### PREVALENCE OF BUSINESS MORALITY

The difficulty about such a situation is that the Westerner, accustomed to other conditions, jumps to the conclusion that all prospects are doubtful. As a matter of fact, the contrary is true. Not only are all prospects not doubful, but in conservative circles business morality is quite as highly developed in Turkey as in the Occident. There are, of course, exceptions to this rule, but they will rarely stand the test of an exhaustive investigation through the channels already referred to.

Leaving other considerations aside, honesty is the best policy in Turkey as elsewhere, because it pays; and the Turkish merchant who has been successful in business for any length of time is as little likely to prove dishonest in normal circumstances as a man in a similar position in any other country.

### SPECULATIVE TENDENCIES

At the same time the fact must be taken into consideration that, business in Turkey being intensely competitive as previously stated, there is a serious tendency to digress from conservatism. Consequently, crises occur in business careers in Turkey more frequently than in countries where market conditions are more stable, with the result that a given credit report is likely to become inapplicable at any moment and may never be considered as applicable for more than a few months.

In short, the Turkish merchant is just as reliable as his occidental rival, but the conditions surrounding his business often incline him away from conservative business practices. It would be unfair to take the attitude that he is not entitled to credit. He has been receiving credit up to 12 months for a long time from European houses and has been meeting his obligations, and extension of credit up to 90 days is usual.

However, an accurate check must be kept constantly on his fluctuating status, and regular payment must be insisted upon. For the rest it may be safely assumed that the Turkish merchant, if known in the market, is as fearful of bankruptcy as his creditors are, for the mercantile trade in Turkey is not one which offers frequent opportunities for "killings" and the consequently great inducements

Digitized by Google

to retirement on the proceeds of swindling operations and fraudulent bankruptcy. This fact is in itself a source of protection to the creditor. As elsewhere noted, profits are small; and the bankruptcy laws are severe.

## HANDLING COLLECTIONS

Side by side with the problem of credit goes the problem of collections, and in this respect also Turkey is not greatly behind the rest of the world.

Banks in Turkey offer all the usual facilities for the handling of collections and perform all the ordinary functions of receiving and transmitting money and, in case of necessity, of protesting drafts. In upper business circles—and these are the only circles with which foreign exporters should have relations—these banks exert a powerful influence because, in a country where trade is limited and bitterly contested as in Turkey, the business man of standing must be on correct terms with the bank. Pressure by the bank is in the majority of cases sufficient to obviate litigation.

If resort to legal steps is necessary, this is no longer within the province of the banks, and an attorney must be employed. It is commendatory of the credit status of the country that there are no agencies or attorneys devoting exclusive attention to collections; these constitute an unimportant side line.

### CHARGES

Banks charge from one-eighth to one-half of 1 per cent for collecting drafts, plus one-half of 1 per cent ad valorem for documentary revenue stamps. For protesting drafts in the case of nonpayment, the charges are as follows, including messenger fees and incidental expenses:

| Amount involved | Cost to maker | Cost to each indorser |
|---|---|---|
| £T10 to £T50 | £T1.85 | £T1.00 |
| £T50 to £T100 | 2.30 | 1.15 |
| £T100 to £T500 | 2.52 | 1.30 |
| £T500 to £T1,000 | 2.76 | 1.50 |
| £T1,000 | 3.95 | 1.65 |
| Over £T1,000 | 3.95 | 2.00 |

Attorney's charges for protesting drafts and collecting accounts vary between 10 per cent and 25 per cent of the amount involved.

## ADVERTISING

The creation of demand for merchandise by means of expensive and sustained advertising campaigns has not been attempted in Turkey until recently. Neither importers nor retailers have appeared disposed to lay out any considerable amounts for such campaigns, and the foreign exporter, with occasional exceptions, does not find that his Turkish trade justifies extensive advertising. Yet the purchaser in Turkey is susceptible to the influence of advertising, just as the purchaser in the west.

Digitized by Google

### LOCAL OBSTACLES

The principal obstacle with which the prospective advertiser in Turkey is faced is the widespread illiteracy. Almost as important is the variety of languages in use. This is especially true for Constantinople, where the proportion is, roughly, as follows: Turkish, 40 per cent; French, 30; Greek, 15; Armenian, 5; Judeo-Spanish, 4; Italian, 3; English, 2; German, 1 per cent. In the Provinces, Turkish is used to the almost total exclusion of all other languages.

Turkish law, under the Republic, imposes throughout the country the use of Turkish characters on all signs, foreign characters being subject to a special tax and restricted to one-fifth of the surface of the sign.

### PRINTING MEDIUMS EMPLOYED

Only within the last 10 years has advertising been undertaken to any serious extent. Even yet it is practiced on a small scale and confined in the main to the newspapers and billboards of Constantinople and the larger towns.

*Cards and circulars.*—In the majority of cases, recourse is had to the direct appeal of the merchandise displayed or to cards or circulars. The latter are too often prepared for the foreign maker's domestic use and are therefore unsuited in both design and language to the Turkish trade. The number of such cards and circulars in the Turkish language and using local color is unduly small.

*Local newspapers.*—Newspaper advertising, on a relatively important scale, was first made use of during the World War by German and Austrian firms, and has since developed into the most important form of advertising. Newspaper advertisements occupy at the present time approximately one-fourth of the space of the country's daily papers, of which there are some 45 with a total daily circulation around 100,000.

The principal Turkish newspapers published at Constantinople are Tanin, Tevhidi Efkiar, Vatan, Jumhuriet, Vakit, Ikdam, and Aksham. The leading newspapers at Smyrna are Sedai Hak, Anadolu, and Tijaret. In addition, there is a daily circulation of a few hundred copies of English, French, German, and other foreign papers. There are also 79 weekly and 31 monthly publications in English, French, and Turkish, including the bulletins of the various chambers of commerce.

The cost of newspaper advertisements is calculated on the linear centimeter basis per column width and ranges from 10 to 35 piasters (6 to 20 cents) per centimeter, according to the newspaper. In spite of its growing importance, it seems true that advertising is still considered largely in the light of a subsidy to the organ favored by the contract rather than in the light of a legitimate business investment.

*Other mediums.*—Other available mediums are billboards, street cars, ferryboats, trains, and moving-picture screens. Of these, the billboards are most important and represent the most serious effort, although the recent legislation requiring the use of Turkish characters has adversely affected their desirability. The other mediums mentioned are of insignificant use. Electric signs, with half a dozen exceptions, have not yet come into use. Store advertising is still

Digitized by Google

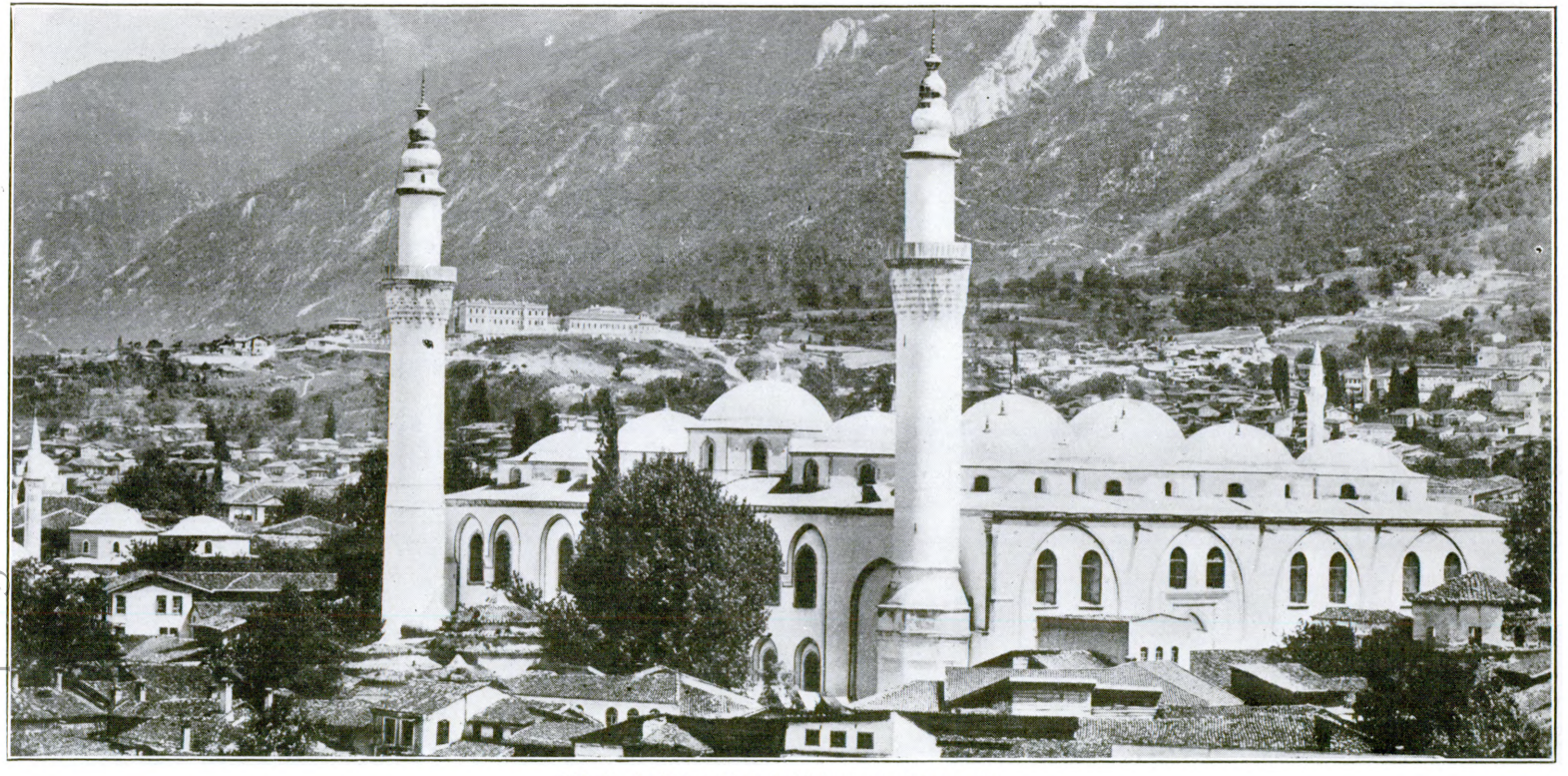

FIG. 9.—BRUSA: THE MOSQUE OF ULU JAMI

Digitized by Google

FIG. 10.—CONSTANTINOPLE: SECTION OF THE GRAND BAZAAR

Digitized by Google

in its infancy, due to the lack of attractive literature, counter, and window display matter.

### STORE DISPLAY

Turkey's retail stores may be divided into three types: The department stores, of which there are fewer than 50, none of them very large, and occupying at most only three or more narrow and badly-lighted floors; several thousand shops, usually selling a dozen or more lines; and very small "shelf shops," built into every conceivable wall hole and street offset, usually only large enough for the proprietor to occupy a cramped position behind a little 12-inch counter. In all, there are said to be over 30,000 of these latter establishments in Constantinople alone, and there are probably more than 100,000 in the whole Republic.

Nearly all of the larger stores are very narrow and artificially lighted, and in the hodgepodge of goods offered for sale the value of individual and distinctive display has not yet been realized. In most cases, the street show windows are so badly illuminated with misplaced high-powered lamps that the glare detracts considerably from the appeal of the goods displayed. Only a few establishments have recently brought their window ware into proper relief by the adoption of indirect and subdued lighting.

Any serious improvement in the adaptability of these stores to modern advertising principles would involve a revolution in building construction, and in the present economic situation of the country this is not to be contemplated.

### FUTURE OF ADVERTISING

It is believed that during the immediate future advertising in Turkey is not likely to advance beyond a gradually extending use of newspapers, billboards, cards and circulars, cinema screens, electric signs, and profit-sharing coupons, in conjunction with a rapidly extending use of the Turkish language and of local color in illustrations. In the rapid evolution of the urban Turk now going on, it is probable that shortly there will be little to distinguish him from the Occidental, or his country from the Occident, so that local color is not a difficult problem.

## LEGAL REQUIREMENTS AND PROTECTIONS

There is a tendency to represent the abolition of the capitulations as having imposed numerous and onerous legal restrictions on foreign business in Turkey. The fact is, however, that foreign business has merely been subjected to the same restrictions and taxation as are imposed on native business, and these are neither numerous nor unduly onerous.

### REGISTRATION

Corporations and stock companies, desiring to do business in Turkey, must register with the Ministry of Commerce. Registration consists of filing a declaration as to the firm's proposed activities, its capital and financial resources, and its estimated volume of business, accompanied by a copy of its charter authenticated by the

Digitized by Google

diplomatic representative in charge of Turkish interests in the country in which the home office is located. Further, the power of attorney granted to the company's resident representative in Turkey must include, in addition to the names of the representative and of the officer appointing him, a copy of the decision of the board of directors with reference to the appointment. On the basis of these documents, the authorization of the Ministry of Commerce to do business is granted or withheld. These formalities usually consume about six weeks, and the cost in fees, stamp taxes, etc., amounts to approximately £T125, plus attorney's and other expenses.

Insurance companies are required to submit, in addition to the documents mentioned, an identity paper, as well as a certificate from the Turkish Embassy or consulate in the country in which the company is domiciled, or from the police or municipal authorities and attested by the local governor general if the company is domiciled in Turkey, to the effect that the company has never failed nor that it has ever been guilty of illegal practices.

There is no registration for partnerships and individual businesses; these are merely required to obey the laws and pay the taxes provided for by law.

Under these conditions, the number of foreign companies registered in Turkey during the fiscal year ended February 28, 1925, was 78, of which 23 were British, 13 French, 8 German, 9 Italian, and 7 American.

## TAXATION

Taxes consist of the imposts usual in other countries, namely, income tax, land tax, road tax, and school tax; plus various special taxes, such as a tax on signs; and indirect taxes, such as national customs duties, municipal customs duties, consumption tax on articles of prime necessity, tobacco and liquor taxes, etc. [A summary of various imposts and taxes levied on industrial establishments in Turkey is published in L'Economiste d'Orient for Aug. 10, 1925, p. 287.]

Comparatively speaking, the taxes affecting foreigners are light, the income tax, for instance, now amounting to only 3 per cent. As mentioned in the section "Agriculture," it is the native agricultural population that is seriously affected by taxation, for in addition to the other direct and indirect taxes, he must pay a tithe of 12½ per cent collected in kind. [By a law promulgated early in 1925, this tithe is now abolished.—*Editor.*]

The relative moderation of the Turkish fiscal burden is shown by the fact that the total revenues of the Turkish Government, according to the budget for the fiscal year ended February 28, 1925, were reckoned at £T129,000,000. Estimating the population at 7,500,000, this gives an average per capita contribution of £T17.20, or about $9.20.

## OTHER REQUIREMENTS

There is also a tendency to exaggerate the annoyance to foreign business of such laws as those requiring the use of the Turkish language, the employment of Turks, and the registration and membership in Turkish chambers of commerce and industry. It is generally overlooked by writers and speakers that the first two of these

Digitized by Google

laws apply only to concessionary companies and not to ordinary business houses, and are very leniently enforced; also, that the third is a source of protection and requires only a moderate fee. On the other hand, there is no compulsory industrial insurance, and the wages of labor are very low.

## TRADE-MARKS AND PATENTS

Turkey has undertaken, by the treaty of Lausanne of July 24, 1923, to enforce the provisions of the international convention on the subject of patents, copyrights, and trade marks. In fact, protection for these has long been afforded by Turkish law, which defines violations as forgery; but the protection has been insufficient because the penalty imposed consisted of only a small fine.

*Trade-mark registration.*—The trade-mark law was promulgated in 1880 and provides for exclusive property in all registered trade-marks. Registration consists of depositing with the Ministry of Commerce several specimens of the mark, if practicable, otherwise exact designs, over the seal and signature of the interested person or his attorney.

*Patent law.*—The Turkish patent law dates from 1880 and provides for the patenting of all discoveries and improvements, with the exception of pharmaceutical compounds and banking and financial projects. Patents are granted for 5, 10, or 15 years by the Ministry of Commerce, on the basis of an application accompanied by a description of the invention, designs drawn to metric scale, and samples.

## BANKRUPTCY AND INSOLVENCY

Under Turkish law the nonpayment, on the part of an individual or firm, of commercial debts when due constitutes an act of insolvency. The failure to pay is proved by failure to heed a summons to pay, lodged through a notary public. When a creditor produces to the court the evidence of indebtedness, with the notarial certification of refusal to pay, the debtor is ordered to deposit in court the amount claimed, and if he fails to do so, he is declared bankrupt.

*Filing of petition.*—The procedure in bankruptcy declarations of individuals, of copartnerships, and of stock companies is one and the same, except that for individuals the declaration must designate the name and the domicile of the debtor; for partnerships, the names of the partners are jointly liable; and for stock companies, the official name of the company.

Petitions in bankruptcy may be made voluntarily by the debtor within three days after ceasing to make payments; or by the intervention of a creditor, in which case the latter must produce documentary evidence to the court that his claim has been dishonored; or by the court, if it finds that a debtor is not in a position to satisfy several claims pending against him.

*Foreign creditors.*—A creditor residing abroad must submit his claim, including a complete statement of all sums owing, fully supported by negotiable instruments or acknowledgments of debts signed by the debtor, acknowledged before a diplomatic or a consular officer in charge of Turkish interests, through an attorney provided with a power of attorney, also acknowledged as above.

Digitized by Google

Bankruptcy proceedings in a foreign country against a firm or individual in Turkey have no effect unless there is a treaty between such a foreign State and Turkey to the contrary effect.

*Status of goods in transit.*—When bankruptcy occurs while goods are in transit, their status is determined by the facts of delivery or nondelivery to the bankrupt. If delivery has not been effected, they are returned, or the receiver may take delivery against payment in the usual way if the purchase is to the advantage of the creditors.

*Preferred claims.*—The preferred or privileged claims against a bankrupt estate in Turkey are: (*a*) Claims secured by mortgage or pledge; (*b*) wages of employees for a period of six months previous to the bankruptcy; (*c*) court and trustee's funds; (*d*) trade and land taxes; (*e*) rent of bankrupt's place of business; (*f*) family grants fixed by the trustees in bankruptcy.

## CHAMBERS OF COMMERCE

In 1911 the American Chamber of Commerce for the Levant was organized in Constantinople, for the purpose of extending American trade relations in the Near East. To American firms interested in this market it can render valuable service, especially in the matter of supplying general and specific trade information, settling trade disputes, surveying merchandise, and providing credit ratings on business houses throughout the Levant. This chamber also issues a monthly publication called the Levant Trade Review. Correspondence may be addressed to the executive secretary of the American Chamber of Commerce, American Consulate, Constantinople.

The Turkish Chamber of Commerce at Constantinople, of which important Turks engaged in commerce and industry are members, aims to bring these people into touch with foreign commercial interests and to disseminate information regarding Turkey's commercial and economic conditions. A bulletin, in Turkish and French, is published monthly.

In addition to these there are in Constantinople British, French, and Italian chambers of commerce, all of which publish monthly reviews in the interests of their own nationals.

Digitized by Google

# PUBLIC FINANCE

Turkish finances have constituted an intricate problem, puzzling European financiers and politicians since 1875 and Turkish ministers of finance since a much earlier date.

## CURRENCY AND EXCHANGE

In order to grasp clearly the financial situation in Turkey it is necessary first to consider the unit of currency and its exchange value. This unit of currency is the Turkish gold pound (divided into 100 piasters), the gold value of which by weight is $4.40.

### GOLD SUPPLY

It is estimated that 50,000,000 such coins have been struck, but rarely has any considerable number of these been in the vaults of the Turkish Treasury. Up until the early part of 1915 gold freely circulated in the country. The only paper currency then existing was an issue of the Imperial Ottoman Bank, of which the smallest denomination was £T5 ($22); this could rarely be secured except as a favor, as they were very much in demand because convenient to carry.

Millions of the gold pieces have been hoarded by the population, which has always manifested a lack of confidence in banks. Millions more have remained in the countries detached from Turkey—Syria, Palestine, and Iraq, etc. Other millions found their way to Germany and Austria between 1914 and 1918, as a result either of clandestine shipments by German and Austrian banks and nationals or remittances by the Turkish Government in payment for munitions of war. Between 1918 and 1922, during the allied occupation of Constantinople and the Straits, it is generally understood that a thriving business in contraband gold exports was done by enterprising elements, in spite of the prohibition proclaimed by the allied military authorities.

It is, therefore, quite impossible to form any idea as to the quantity of gold existing in Turkey to-day. The amount making up private hoards is indefinitely described as "enormous," but this is probably too strong a term. The only definite information is to the effect that the amounts in the hands of the Government and the banks are negligible.

### PAPER-MONEY ISSUES

After Turkey's entry into the World War and beginning with the year 1915, in order to conserve the gold supply and to meet the increased needs of the Government, the issuance of paper money



Digitized by Google

was resorted to. The various emissions of this paper are shown below, the dates given being the dates of the laws authorizing them:

| | |
|---|---|
| Mar. 30, 1915 | £T5,147,919 |
| Aug. 18, 1915 | 5,067,600 |
| Oct. 18, 1915 | 8,131,000 |
| Dec. 22, 1915 | 73,955,820 |
| Feb. 4, 1916 | 31,955,559 |
| Aug. 6, 1916 | 31,994,590 |
| Mar. 28, 1917 | 2,496,075 |
| Total | 158,748,563 |

A further emission law of March 28, 1918, only authorized the issuance of notes to replace mutilated notes of previous emissions, and therefore did not swell the total of paper currency in circulation.

The first of these issues was made repayable in gold within six months after the conclusion of peace, and it formerly commanded a small premium over the other emissions in the local money market; but this condition was canceled by article 58 of the treaty of Lausanne. The remaining issues were guaranteed by German Treasury notes, which were in turn guaranteed by deposits of gold in the German Reichsbank. These gold deposits passed to the allied governments following the World War. All of the paper money in question is, therefore, based solely on the credit of the Turkish Government.

Mention must also be made of £T900,000 of paper currency issued by the Imperial Ottoman Bank. This currency has entirely disappeared from circulation, having either been bought in by the bank or seized by hoarders. It is quoted at about 2.50 of the Government paper pounds, and there are no offers. There also exist between £T8,000,000 and £T10,000,000 worth of small nickel and bronze coins which follow invariably the rate of the Government paper pounds. These currencies are immaterial to the present discussion.

It is generally taken for granted that from 10 to 15 per cent of the total issues of paper currency has entirely disappeared, as a result of wear and tear and of destruction by fire and other calamities, notably the great Smyrna fire of September, 1922. If this estimate be correct, the outstanding paper should approximate £T140,000,000.

## DEPRECIATION OF PAPER MONEY

### IN GOLD EXCHANGE

In the early days of its issue the paper was maintained on a par with gold by a law forbidding transactions in gold, and even when it began to depreciate the difference was for some time less than 10 per cent. Violations of the law became more and more frequent, however, and more and more open, and all respect for it was soon destroyed when the Turkish Government itself was obliged to go into the market and buy gold at a premium in order to cover its remittances to Germany for munitions and even to buy food supplies in the interior where the peasants, in spite of more than one capital execution for gold trafficking, almost without exception declined to honor paper.

Digitized by Google

By the end of 1916 gold was at a premium of 2 to 1 over paper, and the premium was steadily increasing with each new issue. It subsequently reached 12 to 1, and during the first half of 1924 was steady at approximately 8 to 1. By the latter date, however, offerings of gold had ceased to play any important rôle in the money market, the assumption being that gold, outside of hoardings, had become practically nonexistent.

### IN FOREIGN EXCHANGE

In the early period of war, endeavor was also made by law to maintain the exchange value of the paper currency at par. To this end a currency commission (Commission de Dévises) was created. The authorization of this commission was required for every purchase and sale of foreign exchange, the object being to confine such purchases and sales to bona fide commercial transactions and thereby to eliminate international speculation.

A certain amount of success attended this effort right down to the time of the armistice of 1918. For instance, it was the case that, whereas a gold pound was worth 3 paper pounds, each one of those paper pounds was worth $3, a gold pound being thus exchangeable (if a seller of dollars were available) for $9, or more than twice its real value by weight of gold.

In spite, however, of the vigilance of the commission, thousands of foreign drafts found their way into the market and, seeing that they were constantly fluctuating in terms of both paper and gold, led to a universal three-cornered speculation in gold, paper, and foreign exchange; the result of this was to further depreciate paper, which was the most uncertain factor in the speculation. But not until after the armistice did the paper depreciate in terms of foreign exchange to the extent that it had depreciated in terms of gold, although it fell steadily as hope of Turkish victory receded.

### EFFECT OF POSTARMISTICE TRADE RESUMPTION

The situation after the armistice of 1918 differed materially from that which had obtained during the war. The law restricting transactions in foreign exchanges became inoperative and, after a brief period when the paper pound actually rose as a result of the temporary nonexistence of foreign banking connections and the influx of foreigners bringing dollars, pounds, francs, etc., which they were obliged to dispose of at whatever rate they could get, it gradually began to find its proper level. Banking connections with New York, London, and Paris were established, and trade commenced to be resumed along normal international lines.

The Turkish paper pound held its own because, in the first place, the accumulation of foreign drafts, which during the war had been the basis of speculation mentioned above, was sufficient to cover in considerable measure the initial purchases abroad of the manufactured goods of which the market stood in such need after four years of blockade; and, in the second place, the demand abroad for Turkish raw materials which the same blockade had rendered unavailable for four years, and which had accumulated in more or less important quantities, helped to maintain the balance of trade at a figure not disastrously unfavorable to Turkey.

Digitized by Google

Gradually, however, the preponderance of imports over exports became greater, and the situation was rendered more difficult by the Turkish nationalist movement which broke out in Anatolia in 1919 and for three years, during the war with Greece, reduced exports from that territory almost to the vanishing point.

Although Constantinople remained outside the zone of conflict and did a flourishing transit business with Rumania, Bulgaria, Russia, and the Caucasus, the trend of commerce and war was against the Turkish paper pound. The balance of trade remained unfavorable, because economic and agricultural activities in Anatolia were either rendered impossible by hostilities or were forcibly reduced to a minimum by the mobilization of the male population. Moreover, the outcome of the war in Anatolia was uncertain, and until the summer of 1922, the complete overthrow of the Turks seemed not outside the realm of possibility.

Confidence in the Turkish paper pound was therefore undermined, so much so that the merchants of Constantinople began converting their surpluses daily into foreign exchange, usually sterling, not lying down at night until they had taken measures to safeguard against financial disaster. The resulting very heavy purchases of foreign exchange naturally brought the local medium of exchange down; these purchases were still further augmented by the purchases of thousands of emigrants, who during this period decided finally to liquidate their holdings in Turkey and to go elsewhere in search of prosperity.

### EFFECT OF TURKO-GREEK WAR

The Turkish paper pound was given a new lease of life by the defeat of the Greeks in 1922 and the subsequent resumption of trade between Anatolia and the outside world. Nevertheless, the period that has elapsed since 1922 has been far from satisfactory from a financial point of view. The victory over the Greeks was followed by a long period of uncertainty (November, 1922, to July, 1923), during which the negotiations at Lausanne were being conducted and when no adequate forecast could be made of the future situation in Turkey.

Crops were poor in 1922, and the accumulation of raw materials in Anatolia was soon disposed of without greatly affecting the balance of trade. In 1923 the crops proved not particularly more satisfactory, since much of the man power was still under arms and many of the fairest agricultural provinces had been so devastated during the conflict with the Greeks that agriculture, except on a very restricted scale, was impossible.

### EFFECT OF LAUSANNE TREATY

The signature of the treaty of Lausanne on July 24, 1923, brought with it the exchange of populations; that is, the transport to Greece of the Greeks in Turkey in exchange for the Moslems in Greece and in the Greek islands. While this exchange was a very laudable enterprise from the point of view of peace in the Near East, it involved a serious economic and, notably, agricultural dislocation whose effects are likely to be felt for several years.

The Lausanne treaty also left undecided the question of Turkey's public debt—a question no less vital to Turkey than to the foreign

Digitized by Google

bondholders, because the credit of the country and the securing of adequate loans abroad for the reconstruction of the ravages of 12 years of war are intimately bound up with the satisfying of the bondholders in the matter of this debt.

### EFFECT OF GOVERNMENTAL CHANGES

The considerations already mentioned would of themselves have made this a period of anxiety. But this concern has been further accentuated by internal governmental changes in connection with the overthrow of the Ottoman caliphate, the expulsion of the sultanic dynasty, and the establishment of a Republic. In other words, not only have economic conditions been uncertain, but the very form of the government has been undergoing transformation. Consequently, the commercial activity that might have forced the Turkish paper pound upward has been out of the question, the market pursuing a hand-to-mouth policy pending political developments.

### RESULTING EXCHANGE RATES, 1922–1924

As a result of these vicissitudes, the Turkish pound, which represented $4.40 in 1915 and $1.50 in November, 1918, by 1920 averaged only $0.70, and by 1921 had fallen to an average of $0.65. The monthly averages for the succeeding three years are shown below:

| Month | 1922 | 1923 | 1924 | Month | 1922 | 1923 | 1924 |
|---|---|---|---|---|---|---|---|
| January | $0.611 | $0.599 | $0.526 | August | $0.600 | $0.558 | $0.534 |
| February | .672 | .646 | .524 | September | .591 | .579 | .541 |
| March | .658 | .680 | .517 | October | .578 | .585 | .534 |
| April | .680 | .658 | .536 | November | .527 | .549 | .547 |
| May | .664 | .610 | .533 | December | .567 | .533 | .542 |
| June | .627 | .656 | .512 | | | | |
| July | .605 | .627 | .506 | Yearly average | .615 | .607 | .529 |

## STATE FINANCE

### HAPHAZARD COLLECTIONS AND EXPENDITURES

Although an attempt was made to introduce the budget system into Turkey in 1863, Turkish State finances prior to 1908 were conducted along very unscientific lines. The authority of the Palace was supreme, and its chief concern was the securing of sufficient funds to care for the extravagance of the Sultans, their relatives, and satellites.

Appropriations for national welfare were sporadic and subordinated to private interests. Taxation was imposed by imperial decrees. The taxes were in general collected under the system of farming out—that is, by granting the concession for the collection of the taxes to the highest bidder, who paid to the Government the fixed sum bid and to the intermediary between himself and the Government a still larger sum and then took what he could from the taxpayers.

Withdrawals of money from the Treasury were effected against imperial warrants, issued without reference to the funds available; when no funds were available, as was frequently the case, these

Digitized by Google

warrants were discounted with the money lenders. Recourse was also continually had to external and internal loans, on very disadvantageous terms, as well as to misappropriations of charitable funds, of funds of the Agricultural Bank, and like administrations.

No serious attempts were made to ascertain the condition of the Treasury, and this would in fact have been impossible under the conditions existing. This state of affairs, as concerns internal finances, continued to obtain, with slight modification, until the Young Turk Revolution of 1908.

## FOREIGN DEBTS

As regards the foreign debt, however, the situation by 1875 had become most serious, when the nominal total of the freign loans had reached £T227,000,000 gold (about $1,000,000,000). The foreign bondholders, provoked by an official declaration of the Government (October 7, 1875) to the effect that the Sublime Porte, having taken the irrevocable resolution to reestablish a budgetary equilibrium, would pay only one-half of the interest on the foreign loans in cash and the balance in 5 per cent bonds maturing in five years, organized themselves and formulated a protest and demand for satisfaction.

This declaration was looked upon as the equivalent of an admission of bankruptcy by the Government, but the protest of the bondholders was prevented from receiving any serious consideration by the events leading up to and the outbreak of the Russo-Turkish War of 1877–78.

### DECREE OF MUHARRAM

It was only at the Congress of Berlin in 1878, following the Russo-Turkish War, that the claims of the bondholders were accorded international attention, and provision for their satisfaction made. In accordance with the agreement reached at that congress, a commission, consisting of six representatives of the Turkish Government and five representatives of the bondholders, met at Constantinople in 1881, and after deliberation drew up a convention which received imperial sanction by the decree of Muharram.

[Full particulars concerning this decree and its immediate results will be found in Trade Information Bulletin No. 268: Turkey's Foreign Debt, by James R. Mood, European Division, Bureau of Foreign and Domestic Commerce, Department of Commerce.—*Editor.*]

Under this agreement the bondholders sacrificed a considerable portion of the nominal capital of the loans, of the interest, and of the amortization rate. It is probable, however, that, in view of the very favorable terms on which the loans had been contracted and the great discrepancy between the nominal totals of the loans and the sums actually advanced, they were able to do this without serious loss.

### OTTOMAN PUBLIC DEBT ADMINISTRATION

The bondholders succeeded, nevertheless, in securing the establishment of an autonomous international administration, called the Ottoman Public Debt Administration, composed in majority of their own representatives. To this body were ceded important State reve-

Digitized by Google

nues, which that administration was empowered to collect and devote to the capital and interest of the loans.

Up to 1914 the Council of the Ottoman Public Debt Administration consisted of a French delegate, a British delegate who also represented Dutch interests, a German delegate, an Austro-Hungarian delegate, a Turkish delegate, and a delegate of the Imperial Ottoman Bank.

The French and British delegates were forced to leave by the outbreak of hostilities with Turkey in 1914. Until 1918, therefore, the Debt Administration was entirely in the hands of the Turkish, German, and Austro-Hungarian representatives. The treaties following the World War, however, canceled all German and Austro-Hungarian holdings in Turkey and deprived these States of representation on the Council.

The Council functioned, with the sincere cooperation of the Turkish Government and to the entire satisfaction of the creditors of Turkey, until in 1923 when the Grand National Assembly began assuming an attitude of independence toward it and to take measures threatening to restrict or entirely destroy its autonomy. The ultimate fate of the Council is, therefore, at present uncertain.

For the Turkish Government the creation of the Debt Administration had a very salutary effect in stabilizing the country's finances and facilitating the securing of further advances abroad. In consequence, down to 1914, the Debt Administration resorted to the flotation of foreign loans against further cessions of revenues to that administration; this was notably the case after 1903, when the prior loans were unified under a plan which assured the Government 75 per cent of the surplus revenues collected by the Debt Administration, and thus greatly strengthened Turkish credit.

### STATUS ON FEBRUARY 28, 1923

The following table shows the status of the various loans being administered by the Ottoman Public Debt Administration, as of February 28, 1923 (the close of the Turkish financial year):

STATUS OF LOANS BEING ADMINISTERED BY THE OTTOMAN PUBLIC DEBT ADMINISTRATION, AS OF FEBRUARY 28, 1923

| Name of loan | Year | Interest rate | Amortization rate | Nominal capital | Amortization,[1] Feb. 28, 1923 | Nominal capital[2] in circulation, Mar. 1, 1923 |
|---|---|---|---|---|---|---|
| Loans subject to disposition of decree of Muharram (Dec. 20, 1881) and of annex of Sept 14, 1903: | | | | | | |
| Consolidated converted debt | 1903 | *Per cent* 4 | *Per cent* 0.4644 | [3]£T42,275,772 | £T5,847,226 | £T36,428,546 |
| Lots Turcs | 1870 | | | 15,632,548 | 5,614,502 | 10,018,046 |
| Total | | | | 57,908,320 | 11,461,728 | 46,446,592 |

[1] Figures arrived at on the basis of information obtained from the Ottoman Public Debt Administration.

[2] Shares that have come out through lottery, reimbursed or not, are considered as withdrawn from circulation.

[3] Includes £T9,537,000 representing the nominal capital converted from priority shares.

Digitized by Google

STATUS OF LOANS BEING ADMINISTERED BY THE OTTOMAN PUBLIC DEBT ADMINISTRATION, AS OF FEBRUARY 28, 1923—Continued

| Name of loan | Year | Interest rate | Amortization rate | Nominal capital | Amortization, Feb. 28, 1923 | Nominal capital in circulation, Mar. 1, 1923 |
|---|---|---|---|---|---|---|
| Loans outside of decree of Muharram, the service of which, either as a whole or in part, is assured by the Ottoman Public Debt Administration: | | | | | | |
| | | *Per cent* | *Per cent* | | | |
| 4 per cent loan of 1890 (Osmanieh) | 1890 | 4 | 1.00 | £T4,999,500 | £T3,366,000 | £T1,633,500 |
| 5 per cent loan of 1896 | 1896 | 5 | .50 | 3,272,720 | 834,900 | 2,437,820 |
| 4 per cent loan of 1903, with special guaranties (fisheries) | 1903 | 4 | .50 | [4] 2,640,000 | 384,362 | 2,255,638 |
| Bagdad loan (first series) | 1903 | 4 | .087538 | 2,376,000 | 54,164 | 2,321,836 |
| 4 per cent loan of 1904 | 1904 | 4 | .50 | 2,750,000 | 155,936 | 2,594,064 |
| 4 per cent loan of 1901–1905 | 1901–1905 | 4 | .50 | 5,306,664 | 330,242 | 4,976,422 |
| 4 per cent loan of 1905 (Tejhizati-Askerieh) | 1905 | 4 | .50 | 2,640,000 | 332,332 | 2,307,668 |
| Bagdad loan (second series) | 1908 | 4 | .087538 | 4,752,000 | 68,244 | 4,683,756 |
| Bagdad loan (third series) | 1908 | 4 | .087538 | 5,236,000 | 61,798 | 5,174,202 |
| 4 per cent loan of 1908 | 1908 | 4 | .50 | 4,711,124 | 172,216 | 4,538,908 |
| 5 per cent loan of 1914 | 1914 | 5 | .50 | 22,000,000 | 199,232 | 21,800,768 |
| Docks, arsenals, and naval constructions | 1913 | 5½ | 1.50 | 1,485,000 | ---------- | 1,485,000 |
| Total | ---------- | ---------- | ---------- | 62,169,008 | 5,959,426 | 56,209,582 |

[4] Derived as follows:

| | |
|---|---|
| Originating from 5 per cent loan of 1888 | £T1,650,000 |
| Amortized until 1903 | 657,668 |
| In circulation on same date | 992,332 |
| Increase owing to conversion | 1,647,668 |
| Total nominal capital converted in 1903 to 4 per cent type | 2,640,000 |

NOTE—The report of the Ottoman Public Debt Administration, on the status of the debts under its care on March 1, 1925, is published in detail in L'Économiste d'Orient for July, 1925.

## LOANS ADMINISTERED BY GOVERNMENT

In addition to the loans administered by the Ottoman Public Debt Administration, other foreign loans have been contracted and are administered by the Government directly. Their status, as of February 28, 1923, is indicated in the following table.

STATUS OF FOREIGN LOANS ADMINISTERED BY THE TURKISH GOVERNMENT, AS OF FEBRUARY 28, 1923

| Name of loan | Year | Interest rate | Amortization rate | Nominal capital | Amortization, Feb. 28, 1923 | Nominal capital in circulation, Mar. 1, 1923 |
|---|---|---|---|---|---|---|
| | | *Per cent* | *Per cent* | | | |
| Tombeki priority | 1893 | 4 | 1.00 | £T1,000,010 | £T569,800 | £T430,210 |
| 40,000,000 francs (Oriental Railways) | 1894 | 4 | .35 | 1,760,000 | 331,628 | 1,428,372 |
| 4 per cent loan of 1902 (customs) | 1902 | 4 | .50 | [1] 8,600,020 | 676,786 | 7,923,234 |
| 4 per cent loan of 1909 (customs) | 1909 | 4 | 1.00 | 7,000,004 | 449,306 | 6,550,698 |
| Hodeida-Sanaa | 1909 | 4 | .098738 | 1,000,010 | ---------- | 1,000,010 |
| Soma-Panderma | 1910 | 4 | .16715 | 1,712,304 | 11,660 | 1,700,644 |
| 4 per cent loan of 1911, with special allowance on the Constantinople customs | 1911 | 4 | 1.00 | 7,040,000 | 781,451 | 6,258,549 |
| Total | ------- | ------- | ------- | 28,112,348 | 2,820,631 | 25,291,717 |

[1] Derived as follows:

| | |
|---|---|
| Nominal capital originating from 5 per cent loan of 1886 | £T6,500,000 |
| Amortized capital until 1902 | 1,367,334 |
| In circulation on the same date | 5,132,666 |
| Increase owing to conversion | 3,467,354 |
| Total nominal capital converted in 1902 to 4 per cent type | 8,600,020 |

Digitized by Google

STATUS OF FOREIGN LOANS ADMINISTERED BY THE TURKISH GOVERNMENT, AS OF FEBRUARY 28, 1923—Continued

| Name of loan | Year | Interest rate | Amortization rate | Nominal capital | Amortization, Feb. 28, 1923 | Nominal capital in circulation, Mar. 1, 1923 |
|---|---|---|---|---|---|---|
| Loans guaranteed by Egyptian tribute and excess of receipts of Cyprus: | | *Per cent* | *Per cent* | | | |
| Guaranteed loan | 1855 | 4 | 1.00 | [1]£T4,196,720 | | £T4,196,720 |
| Defense loan | 1891 | 4 | .42 | 6,948,612 | £T1,779,800 | 5,168,812 |
| Egytian tribute | 1894 | 3½ | .49 | 9,033,574 | 2,045,890 | 6,987,684 |
| Total | | | | 20,178,906 | 3,825,690 | 16,353,216 |
| Loans guaranteed by the Government: | | | | | | |
| Municipal loan, city of Constantinople | 1909 | 5 | .50 | 1,100,000 | 46,596 | 1,053,404 |
| Do | 1913 | 5 | .50 | 1,100,000 | 5,500 | 1,094,500 |
| Municipal loan, city of Bagdad | 1912 | 6 | 14.285 | 33,000 | 6,930 | 26,070 |
| Total | | | | 2,233,000 | 59,026 | 2,173,974 |

[1] Derived as follows:

| | |
|---|---|
| Original nominal capital | £T5,500,000 |
| Nominal capital amortized until 1876 | 1,303,280 |
| In circulation on same date (since then amortized but not yet reimbursed) | 4,196,720 |

### TOTAL OUTSTANDING, MARCH 1, 1923

The consolidated outstanding foreign debt of Turkey on March 1, 1923, was therefore as follows:

| | |
|---|---|
| Loans subject to the decree of Muharram, administered by the Public Debt Administration | £T46,446,592 |
| Loans outside the decree of Muharram, administered by the Public Debt Administration | 56,209,582 |
| Loans administered by the Turkish Government directly | 25,291,717 |
| Loans guaranteed by the Egyptian tribute and Cyprus revenues | 16,353,216 |
| Municipal loans guaranteed by the Government | 2,173,974 |
| Total | 146,475,081 |

A complete survey of the foreign debt of Turkey would also include a consideration of the advances supposed to have been secured by the Turkish nationalist leaders from Russia during their struggle against the Greeks (1919–1922). However, information is lacking as to both the amount of such advances and the terms on which they were secured. Moreover, it is possible that they constituted payments for raw materials furnished to Russia. The advances made by Germany and Austria to Turkey during the period from 1914 to 1918 and estimated at £T56,500,000 have been canceled by the various treaties terminating the World War.

## DEBT PAYMENT

### QUESTION OF PAPER OR GOLD MEDIUM

The above total of 146,475,081 may be considered for the moment as gold and as being therefore equivalent, at the rate of $4.40 per Turkish pound to $644,490,356. That is, the loans represented by this figure having been contracted at a time when the Turkish pound represented gold, the present attitude of the bondholders is to demand their payment in gold.

Digitized by Google

There seems to be good reason, however, for doubting that these loans will be paid in gold. The interest coupons provide for the payment of the interest in either francs, shillings, marks, or piasters (presumably gold) at the option of the bondholders. This provision was inserted originally as a matter of convenience to the bondholders, the majority of whom carried their accounts in either Paris, Berlin, or London; the settlement in any one of the four countries was immaterial to the Turkish Government, as all were at par.

When this question came before the Lausanne Conference in 1923, the Turkish delegates insisted upon the payment of the coupons in francs, which have depreciated, whereas shillings are not materially below par. They maintained their point of view to the extent that the matter was left for negotiation at a later date. Other Governments have taken no steps, the Turks argued, toward the payment of their debts in any other currencies than those in which the debts were contracted, regardless of the subsequent depreciation of such currencies. Although some of the Turkish loans were contracted in foreign currencies, they have been carried on the books of the Debt Administration in Turkish pounds.

### SHARE FROM DETACHED TERRITORIES

A further consideration in connection with the Turkish foreign debt is the fact that under the treaty of Lausanne the territories detached from Turkey, including those detached as a result of the Balkan War, are to assume their proportionate shares of the debt; the exact figures to be fixed by future negotiations. Hence, a part of the present debt will become payable by Albania, Yugoslavia, Bulgaria, Greece, Syria, Iraq, Palestine, and Hejaz.

[The matter of determing the proportionate share of each detached territory was finally left to an arbiter (Mr. Borel), appointed by the League of Nations. Under a decision rendered by him in April, 1925, these shares are distributed in the following proportions: Turkey, 62.25 per cent; Greece, 10.57 per cent; Serbia, 5.25 per cent (but Serbia refuses to be responsible for any part of the Ottoman debt and has withheld its signature from the treaty of Lausanne); Syria and Greater Lebanon, 8.17 per cent; Iraq (Mesopotamia), 3.96 per cent; Palestine, 2.47 per cent; Bulgaria, 1.63 per cent; Albania, 1.57 per cent; Italy, 0.23; other Arab States, 3.90 per cent.—*Editor.*]

### ATTITUDE OF PRESENT GOVERNMENT

Mention has been made in the Turkish press of the possibility of totally wiping out this debt by the sale of the imperial palaces and other dynastic property made available by the expulsion of the dynasty in March, 1924. Whether this is possible or not is a matter difficult of determination. In any case the debt considered on this basis is far from formidable.

In the meantime the Government has suspended appropriations for interest and amortization, pending the partition of the debt among the detached territories; has greatly reduced the appropriation for the expenses of the Ottoman Public Debt Administration; and has

Digitized by Google

itself begun the encashment of the ceded revenues. The situation as regards the whole foreign-debt question is therefore temporarily unsettled.

The attitude of the Turkish delegates at Lausanne toward the question of the coupons, and the more recent attitude of the Government in curtailing the authority of the Debt Administration, have produced uneasiness in financial circles. On the other hand, the comparative smallness of the indebtedness and the belief that Turkey has now entered in good faith upon an era of peace and sound government create an atmosphere likely to dissipate anxiety. It seems highly improbable that Turkey, for the sake of its national credit if for no other reason, will adopt an uncompromising attitude.

## INTERNAL DEBT

### DOMESTIC REQUISITIONS

The internal obligations of Turkey are much more difficult to arrrive at.

Between 1882 and March 1, 1909, in addition to foreign loans contracted, the Hamidian régime secured from banks, the lighthouse administration, and the tobacco monopoly £T6,910,000, and also appropriated to itself the capital of the Agricultural Bank up to £T3,864,000. Following the Young Turk Revolution, when an attempt at financial reorganization was made in 1909 with the assistance of Mr. Charles Laurent, a French expert employed for that purpose, there were presented about 560,000 claims totaling £T13,000,000. This means a total outstanding internal debt of £T23,744,000, not otherwise provided for.

### BUDGETARY DEFICITS

The budgetary deficits from 1909 to 1918 inclusive are estimated to have totaled £T349,000,000, distributed as follows:

| | | | |
|---|---|---|---|
| 1909 | £T5, 000, 000 | 1914 | £T35, 000, 000 |
| 1910 | 6, 000, 000 | 1915 | 43, 000, 000 |
| 1911 | 8, 000, 000 | 1916 | 47, 000, 000 |
| 1912 | 10, 000, 000 | 1917 | 85, 000, 000 |
| 1913 | 16, 000, 000 | 1918 | 94, 000, 000 |

During the years 1919 to 1922, there were no regular budgets. The Imperial Government had no jurisdiction beyond the limits of Constantinople and the Straits zone, occupied by the allied armies, and it subsisted on the slender revenues derived from that territory. The Nationalist Government was in supreme control outside this territory, and it took such revenues as it could find without making public to date any information as to its financial operations. This period must consequently be considered a dark age.

Since the triumph of the nationalist movement, the first budget—that for the year ended February 29, 1924—showed a deficit of £T10,000,000. The budgetary deficits for the period between March 1, 1908, and February 29, 1924, therefore approximate £T359,000,000, without consideration of the years 1919 to 1922 during which very heavy obligations should have been incurred as military requisitions.

59573—26——15

Digitized by Google

### NET INTERNAL OBLIGATIONS

A recapitulation of the information available and which is necessarily inexact shows the following:

| | |
|---|---|
| Outstanding at the end of the Hamidian régime, on account of advances from banks, etc., appropriation of Agricultural Bank capital, and private claims | £T23, 774, 000 |
| Budgetary deficits since 1909 | 359, 000, 000 |
| Total net internal obligations | 382, 774, 000 |

It is assumed that the figure of £T23,774,000 may be considered as having been taken care of in the course of Government accounting, and that the net difference between the revenues and expenditures of the State for the period under discussion may be supposed, for the purposes of this survey, to have been £T359,000,000.

### LOANS TO MEET INTERNAL DEBTS

This difference was met by the contracting of further obligations. Thus, during the period between 1908 and 1924, exclusive of Government-guaranteed municipal loans, there were floated foreign loans to the amount of £T55,036,442, of which £T53,192,535 remained outstanding. An internal loan of £T17,977,600 was also floated, of which £T17,851,120 remained outstanding. Paper currency totaling £T158,748,563 was issued, and German and Austrian advances are estimated at £T56,500,000. The following amounts were therefore acquired:

| | |
|---|---|
| Foreign loans | £T53, 192, 535 (gold). |
| Internal loan | 17, 851, 120 (paper). |
| Paper currency | 158, 748, 563 (paper). |
| Austro-German advances | 56, 600, 000. |

The amount of the Austro-German advances was canceled by the treaties terminating the World War. It is assumed that the foreign loans, £T53,192,535, are payable in gold. The internal loan and paper currency represent paper values.

### PRESENT NATIONAL DEBT

The new Turkish State may therefore be considered as having begun its career faced with the following obligations:

| | |
|---|---|
| Foreign loans | £T146, 475, 081 (gold). |
| Internal loan | 17, 851, 120 (paper). |
| Paper currency | 158, 748, 565 (paper). |
| Floating debt | 73, 000, 000 (paper). |

The foreign loans, representing £T146,475,081, are assumed to be payable in gold, which would mean, with a population of 7,500,000, a per capita debt of £T19.5 gold, or $85.80. Any attempt to reduce the internal debt to a dollar equivalent is practically impossible, owing to the present and especially to the future fluctuations of the Turkish pound. By way of illustration, however, if this total internal debt in paper were converted into dollars at the average exchange value of the Turkish paper pound for February, 1925 ($0.52), it would amount to $205,958,877.

Digitized by Google

## FINANCIAL OUTLOOK

As against this total of obligations the Turkish Republic is without any gold reserve, and there is probably very little gold in the country; the credit of the State, though far from destroyed, is nevertheless compromised by uncertainty as to the attitude that the Government will adopt toward its creditors; finally, the country is almost without industries and its agricultural organization is disarranged as a result of the wars and migrations of the past decade, so that in spite of a policy of discouraging imports the balance of trade is heavily against it.

On the other hand, although without gold, the Government has acquired the vast holdings of the "evkaf" (pious foundations), the inheritance of the dynasty, and the so-called "abandoned property," which latter item comprises the property of non-Moslem Turkish subjects who have either abandoned their domiciles in Turkey, disappeared while in exile, or are being exchanged under the exchange-of-populations convention with Greece. It is not yet possible to even approximate the extent of these acquisitions. [The Government, in August, 1925, announced its decision for the immediate sale of State properties, of properties of the former imperial civil list, and of abandoned properties, payments being allowed to run from five to eight years.]

Furthermore, Turkey is rich in mineral and lumbering resources, the exploitation of which is capable of furnishing a profitable outlet for capitalistic investment; the concessions for mining and lumbering operations, as well as for railroads, harbors, and general public works, are in the hands of the Government, which will undoubtedly be able to dispose of them to foreign capitalists on terms advantageous to itself. The State, therefore, although short of liquid cash, appears to occupy a fairly strong position.

As already intimated, its foreign debt is to be materially decreased by reparation among the States detached from Turkey, and there is hope of further reduction by some arrangement with reference to the rate of exchange at which the debt is to be paid.

Whether this hope is realized or not, if sound government is maintained, capital is unlikely to avoid such a promising field of investment as Turkey constitutes, and the prosperity of the State and the country at large seems therefore to be assured. No paper currency has been issued by Turkey since the armistice of 1918.

Digitized by Google

# BANKING

## LACK OF TURKISH CAPITAL

The average Turk, provided he has any means at all, may in general be described as "land poor." It is true that certain Turks have successfully followed business careers, but investigation often discloses that these individuals are descendants of Cretan Greek or Saloniki Jewish ancestors converted to Islam. The true Turk has been a soldier, or an official, or a patient tiller of the soil, and has rarely taken any interest in matters of commerce further than to periodically raise money from the non-Moslem or foreigner on his land holdings (generally acquired originally by imperial grant) to meet the pressing needs of the moment. For this reason there have never been any important concentrations of capital in Turkish hands.

### OBSTACLES TO BANK CREATION

Every circumstance of national life has militated against the creation of Turkish banks, and it is not surprising that attempts to found institutions of this kind have been rare and that such attempts have given only indifferent results. Religion, improvidence, and lack of confidence in State and neighbor have effectively closed to the Turk this field that has been reserved to his perhaps less devout, but more astute, non-Moslem fellow countryman or to the enterprising foreign infidel.

#### MOSLEM FAITH

The religion of Islam forbids usury, and interprets usury to include interest in the ordinary Western application of this term. The Moslem, like the landowner in every country, has always been devout and adheres very closely to the precepts of his faith. In spite of natural deviations from the straight and narrow path, the hostility toward usury has persisted as a characteristic of the people. To this lack of means for financial undertakings must be added a downright aversion to association with what the popular mind considers to be the practices of infidels.

#### POLITICAL AND SOCIAL HINDRANCES

The Imperial Government of Turkey was absolute and existed largely on merciless extortion. The consequence of this state of affairs was lack of confidence, not only of the lower classes in the upper or ruling classes, but of the members of the latter in each other. Commercial cooperation was impossible, and even individual commercial enterprise was not to be conceived except in fear and trembling, for any display of prosperity could hardly fail to excite the avidity of a State in a permanent condition of financial embarrassment.



Digitized by Google

### HOARDING

The acquisition of wealth was inevitably followed by hoarding and concealment. Fear of confiscation, either outright or in the form of unbearable taxation, was superimposed upon fear of being swindled by one's neighbor. These two factors, in connection with indifference or open hostility toward the institution of interest, dictated the keeping of one's money near one in the form of either cash or jewelry, rather than employing it for the development of the country. How much money has been hoarded can not even be guessed.

A population of some 7,500,000 has been resorting to hoarding for centuries, so that practically all the liquid capital of the Turks, with the exception of certain deposits in banks abroad, is presumed to have been absorbed in this way. But whether the total thereof is £T50,000,000 or £T500,000,000, it would be hazardous to guess. However, the total of bank deposits in Turkey is believed not to exceed £T25,000,000, whereas the total of paper currency in circulation is in excess of £T140,000,000. These figures take no account of the Turkish and foreign gold, Ottoman Bank notes, and foreign currency (notably dollars, pounds sterling, and Swiss francs) which are known to be held in the country in an amount generally described indefinitely as "vast."

Nothing but a changed psychology, induced by a protracted experience of a liberal government, can disclose the true extent of these secret holdings. In the meantime, the disappearance of a great part of them as a result of fire or other disaster or the death of the hoarders, must be envisaged.

## HISTORY OF BANKING IN TURKEY

The history of banking in Turkey really begins with the establishment of the present Ottoman Bank in 1863, but as early as 1846 a Bank of Constantinople had been founded by Greek capitalists with the cooperation of the Ottoman Government, for the principal purpose of maintaining the exchange value of the Government currency then in circulation. The effort was unsuccessful, and the bank was liquidated in 1852, leaving the currency situation desperate.

Turkish, British, French, and other foreign gold circulated in the country along with paper currency, and notably in 1856 (following the Crimean War) the latter fluctuated from minute to minute. It was the golden age of the exchange speculator, and many of the present-day Armenian, Greek, Jewish, and Levantine fortunes have come down from ancestors who were money-changers of that period.

### OTTOMAN BANK

*History.*—In 1856 the Ottoman Bank was founded by a group of British capitalists under royal charter with a capital of £T500,000; it afforded some slight relief to the situation by making advances to the treasury and promoting trade with England. It was not able, however, to effectively check financial disorders or diminish the circulation of paper money.

On February 4, 1863, these British capitalists were joined by a group of French capitalists, and the Imperial Ottoman Bank was

Digitized by Google

created as the State bank of Turkey, with the exclusive privilege of issuing currency against gold reserve. This bank has existed to the present day, its charter having been extended in 1895 to 1925, and in 1925 to 1935.

*Branches.*—Besides the central offices in London and Paris, it now has 39 branches in Turkey, 5 in Egypt, 6 in Cyprus, 5 in Palestine, 3 in Iraq, 3 in Greece, 3 in Persia, and 1, respectively, in Jidda and Hodeidah (Arabia), the island of Rhodes, and Tunis; the 10 branches formerly maintained in Syria have been taken over by a subsidiary known as the Bank of Syria and Greater Lebanon.

*Activities.*—Down to 1890 the Imperial Ottoman Bank (rechristened the Ottoman Bank, following the establishment of the Turkish Republic) confined its activities largely to dealings with the Treasury, but gradually it enlarged the sphere of its operations and engaged in ordinary banking operations and particularly in the promotion of public works enterprises, such as railways and harbors. Along with the Ottoman Public Debt Administration, it has been a prime factor in stabilizing Turkish finances, restoring Turkish credit, and developing the resources of the country. It has also sponsored other banks, such as the Société Générale de l'Empire Ottoman, La Banque Austro-Ottomane, Le Crédit Général Ottoman, and other banking houses that no longer survive.

*Present rôle.*—Under the agreement concluded with the Turkish Government in 1924 and ratified with some omissions by Parliament in March, 1925, the bank, although continuing to be an Anglo-French institution so far as its capital is concerned, is perhaps likely to assume more nearly a Turkish character. It is to open an account current of £T5,000,000 in the name of the State at a favorable rate of interest and grant an advance of £T2,000,000 to the Agricultural Bank on like terms. The appointment of its general manager must have the approval of the Government, and within five years 50 per cent of its personnel must be Turkish. It regains its position as a bank of issue. It undertakes to bring into the country £T500,000 of capital, and will be privileged to act as intermediary for financial transactions between the Government and interests abroad.

### AGRICULTURAL BANK OF TURKEY

*History and organization.*—The Agricultural Bank of Turkey was founded by the state in 1888 for the promotion of agriculture; but only recently, and after it had been completely detached from the Ministry of Commerce and Agriculture and given an independent status, has it indicated its ability to render real assistance to the rural population. The bank formerly received 1 per cent out of the 12.5 per cent tithe collected on all agricultural crops. [The very considerable restriction of this tithe by recent legislation is discussed under the section "Agriculture."]

The stock was divided among the rural communities in proportion to the amount of tithes paid, and provision is made for the eventual existence of individual stockholders on the basis of the business done by such stockholders with the bank. The paid-in capital now amounts to £T11,000,000, but under the charter no dividends will be paid until the capital reaches £T30,000,000. The director of the

Digitized by Google

bank is a German expert, and the members of the board of managers are landowners, of whom four are appointed by the State.

*Loan activities.*—Loans are extended equivalent to 50 per cent of the value of the borrower's land, with interest at rates varying from 6 per cent to 8 per cent and with facilities for repayment in many annuities. To date, the tendency has been to greatly undervalue the land and thereby force the peasant to resort to the usurers, which is the very abuse that the bank was designed to correct. The Government has also frequently appropriated the capital of the bank in times of need and is now indebted to it in the sum of about £T7,250,000.

The situation tends toward amelioration, however, notably as a result of the assistance rendered to cultivators, whether landowners or not, by the Agricultural Credit Union—a peasants' cooperative organization, which stands guarantor for the loans of its members. The bank itself is also struggling earnestly to eliminate all obstacles to the rendering of efficient service to agriculture; it is not only extending credit on the most favorable terms its situation will permit, but is furnishing machinery and implements on very favorable terms, as well as promoting agricultural education.

### OTTOMAN NATIONAL CREDIT BANK

*Exclusively Turk foundation.*—The Ottoman National Credit Bank was founded in January, 1917, with the cooperation of the then Minister of Finance, Hussein Javid Bey, in an effort to create a distinctively Turkish bank. The charter of this bank restricts participation in the administration to Turkish-speaking subjects of Turkey and stockholding to Turkish subjects.

The capital is divided into 400,000 shares of £T10 each, in order to allow the humbler citizens to subscribe. The Government owns 40 per cent of the stock and appoints the president. To date, branches have been opened at Smyrna, Angora, Brusa, and Adana, in addition to the main offices at Constantinople.

*Industrial rôle.*—The bank is intended to finance private and public enterprises of all kinds, such as railways and mines, besides doing a usual commercial banking business. As yet its success has been indifferent. The only enterprise it has undertaken to finance is the Argana copper mines, and in order to do this it has felt constrained to seek the cooperation of German capital. It has also not been able to maintain a distinctively Turkish character as regards personnel.

### OTHER NATIVE BANKS

*National Bank of Turkey.*—The National Bank of Turkey, founded after the revolution of 1908, although incorporated under Turkish law, is a Turkish national bank in name only. In reality it is British and is affiliated with the British Trade Corporation. It has no more connection with the Turkish State than has any other private commercial bank. Its paid-up capital is £250,000.

[On May 29, 1925, the bank suspended operations, but is understood to plan the maintenance of a small office in order to hold its concession.]

*Bank of Saloniki.*—The Bank of Saloniki was founded in 1888 by a group of Saloniki Jews under charter of the Sultan. After the

Digitized by Google

occupation of Saloniki by the Greeks in 1913 its headquarters were transferred to Constantinople, where it has maintained the reputation of being one of the strongest of the native banks. It is understood that its capital of 30,000,000 francs is controlled by the French Société Générale, and that it is shortly to disappear by absorption into the Crédit Foncier d'Algérie et de Tunisie, another subsidiary of the Société Générale.

*Bank of Industry and Mines.*—Announcement was made in June, 1925, of the founding of the Bank of Industry and Mines, with a capital of £T1,200,000 to be provided in the State budget. It is to take over for the Government various State industrial plants, except those manufacturing munitions. These plants include the Herekeh cloth, carpet, and silk factory, the Fezaneh cloth factory, the Beikos leather factory, and the Bakir-Keui cloth factory.

*Business Bank of Turkey.*—This bank, under the name "Turkia Ish Bankassi," has its headquarters at Angora and a reported capital (said to be entirely Turkish) of £T4,000,000. Its policy is to encourage and assist Turkish business activities.

### FRENCH BANKS

The earliest French bank to establish itself in Turkey was the Crédit Lyonnais, whose Constantinople and Smyrna offices have been operating since 1871. These are branches of the well-known French bank of the same name and have contributed extensively to the promotion of Turko-French commercial relations.

Other French banks are the Banque de la Seine and the Banque Française des Pays d'Orient, both opened in Constantinople after the armistice of 1918.

### GERMAN BANKS

*Deutsche Palaestina.*—The first German bank to operate in the Levant was the Deutsche Palaestina Bank, which entered the field in 1889. It made good headway, in spite of the competition from previously established rivals. Its capital was increased in 1910 from 400,000 to 2,000,000 marks, and branches were opened at Beirut, Haifa, and Aleppo.

*Deutsche Orientbank.*—The Deutsche Palaestina Bank was absorbed in 1914 by the Deutsche Orientbank, founded in 1906 with a capital of 16,000,000 marks by the National Bank fuer Deutschland, the Dresdner Bank, and the Schaffhauerischer Bankverein. Until after the armistice of 1918, it maintained branches in the Turkish cities of Constantinople, Adrianople, Aleppo, Adana, Mersina, Tarsus, Brusa, and Konia, as well as in the Egyptian cities of Cairo and Alexandria. It played an important rôle in the promotion of trade with Germany, in addition to being one of the most satisfactory mediums for the transaction of domestic business in the territory in which it operated. It was not reopened after the armistice, until June 15, 1924.

*Deutsche Bank.*—The most important of all German banks established in Turkey was, however, the Deutsche Bank. Although conducting a commercial banking business, its principal function was the financing of Government loans and public and private development enterprises. It was an important unit in the German plan

Digitized by Google

for expansion in Turkey, and played an outstanding part in the securing of the concessions for the Bagdad Railway and affiliated utilities. It also secured in 1907 and completed in 1913 a concession for the irrigation of the plain of Konia. The Constantinople branch was opened in 1909, and another branch was opened in Bagdad in 1914. After the armistice of 1918, the Constantinople branch was placed under a controller appointed by the Allied Occupation Authorities, and was only officially reopened as an independent banking institution on January 1, 1924.

### ITALIAN BANKS

*Banco di Roma.*—The only Italian bank operating in Turkey prior to the armistice of 1918 was the Banco di Roma, whose Constantinople offices were opened in 1909. In addition to doing a commercial banking business, it was also interested in financing Italian commercial and financial penetration into the Turkish field.

*Other Italian banks.*—The Banco di Roma was joined after the armistice by the Banca Commerciale Italiana and the Banca Italiana di Sconto. The Italians were successful in securing a large part of the very attractive business formerly done by the German and Austrian banks, and, to the end of permanently maintaining this business, engaged a considerable part of the old German and Austrian personnel that was trained in Teutonic methods. The Banco di Roma and the Banca Commerciale Italiana still exist, but the Banca Italiana di Sconto failed in Italy in 1921, and somewhat clouded the credit of Italian banks in Turkey. It is understood, however, that the Italian Government is interesting itself on behalf of the creditors with a view to restoring this credit. The Constantinople branch of the Banca di Sconto has settled with all its creditors in full, the last installment being paid out in September, 1923.

### RUSSIAN BANKS

After 1909 Russian banking interest in Turkey was represented by the Russian Bank for Foreign Commerce. Although maintaining offices and a full staff in Constantinople, its activities have been for all practical purposes suspended by events in Russia. The headquarters of the bank, formerly in Petrograd, have been transferred to Paris.

Until April, 1925, banking operations between Turkey and Russia were handled by the Hollandsche Bank voor de Meddellandsche Zee (Dutch), which opened offices in Constantinople in February, 1921, and acted as the correspondent of the Soviet State bank. On March 30, 1925, the Soviet Bank for Foreign Commerce was inaugurated at Constantinople—the first branch of a Russian bank to be opened abroad since the revolution of 1917.

### AMERICAN BANKS

No American bank existed in Constantinople until October, 1920, when a New York concern opened a Constantinople branch. On October 1, 1922, it retired from the field, bequeathing its interests to the Ionian Bank (Ltd.), a British institution with branches throughout Greece and Egypt.

Digitized by Google

On April 1, 1921, another American bank was opened in Constantinople by the American Express Co. This bank has operated successfully throughout the economic crisis of the past three years, and has rendered assistance to travelers as well as to shippers. It is at present the only American banking institution in the Levant, and maintains offices also at Athens and Cairo.

### OTHER FOREIGN BANKS

Other foreign banks doing business in Turkey are the Banque Belge pour le Commerce Étranger (Belgian); Marmorosch, Blank & Co. (Rumanian); and the Commercial Bank of the Near East (Ltd.) (Greek). A number of Greek banks, such as the Bank of Athens and the Bank of the Orient, were closed following the victory of the Turks over the Greeks in 1922. On April 9, 1925, the branches of the Bank of Athens in Turkey were allowed to reopen for a period of three months in order to liquidate their business.

There are also numerous private banks, consisting in large proportion of simple money changers and brokers, although a few of them rise above this rank. They have no international importance, however, and conduct their own operations with foreign countries through the banks already discussed.

### RÔLE OF THE FOREIGN BANK

Almost every one of these foreign banks has its history, sometimes secret but more often known, of foreign political intrigue for a share in the partition of the estate of the quondam "Sick Man of Europe." Every one of them has reaped large profits in promoting the trade of the country it has represented. None has worked with singleness of purpose for the prosperity of Turkey—that has always remained an incidental consideration. This concentration of capital in foreign hands has undoubtedly constituted a serious handicap to Turkey. However, it may safely be stated that the absence of such foreign concentrations of capital would have left the country in a much worse plight than it now finds itself.

Moreover, blame for failure to cooperate sincerely for the well-being of the country is far from resting exclusively on the banks. Under the old régime in Turkey the Ministry of Finance adopted a reasonable attitude only when in need. Turkey may consequently be considered as indebted to the foreign banks, which have rendered practicable its trade with foreign countries, financed important public works to which the Republic has now fallen heir, and have protected the Turkish loans and thereby maintained Turkish credit.

Thus it is not unreasonable to expect that the rôle of the foreign bank in Turkey will be no less important in the future than in the past. Just as in the past, so to-day Turkey needs money above everything else, and it can only obtain this relief from the foreign banker. The secret of the enhanced local prosperity and more favorable terms lies in security of investment, and if investment be made secure the speculative interest that has heretofore existed in the country will give way, in so far as sound finance will permit, to a sincere and legitimate interest in the country's welfare.

Digitized by Google

## OUTLOOK

The future of banking in Turkey depends entirely upon the success of the new republican movement in establishing security, restoring confidence, and removing legal obstacles to the development of the banking business. It is true that under present conditions there is very little interference by the Government with the banks; aside from the usual formalities of registration, which are far from onerous, the banks are controlled largely by the judgments of their managers. If the evil of usury be considered it may even be said that the Government is too lenient.

There is pressing need, however, of reform of the land tenure, inheritance, and mortgage laws and of hastening of legal procedure that will enable the banks to embark on a policy of greater service to the public without danger of loss or indefinite tie-up of capital.

For the past, it can be said that if the rate of interest has been high, money has been worth a high rate of interest in Turkey; if it has been difficult or impossible for the average citizen to secure a loan, the average citizen has not satisfied the conditions which apply everywhere to the securing of loans. The country has been poor; property has not always been secure; business has been largely speculation; the law has constituted a bewildering conundrum, resort to which has been suicidal from a financial point of view.

The problem for the Republic is the creation of native capital by a policy of moderation which will enable the establishment of industries with the initial cooperation of foreign finance. Capital is conservative, independent, and a wanderer on the face of the earth without nationality. It does not, however, fix the place of its temporary abode according to fancy, but according to cold calculation. The Turk must make of his country an attractive abode for capital.

Digitized by Google

# APPENDIXES

## Appendix I.—AMERICAN RELATIONS WITH TURKEY

### FIRST TREATY

Although President Adams in 1799 had appointed William Smith, of South Carolina, who was then American minister to Portugal, to be minister to the Sublime Porte, with full authority to negotiate a treaty of amity and commerce with Turkey, diplomatic relations between the United States and Turkey were not established until 1830. Smith's mission was soon abandoned, and no further official steps toward a treaty were taken until 1820. The Bradish-Bainbridge mission of 1820 produced no conclusive results; and neither the English-Rodgers mission, which covered the years 1823–1826, nor the Crane-Offley mission of 1828 could claim better success. The treaty of 1830 was negotiated on the part of the United States by Mr. Charles Rhind, a New York merchant long interested in trade in the Levant, together with Commodore James Biddle, commander in chief of the United States Mediterranean Squadron, and Mr. David Offley, a Smyrna trader who afterwards became the first American consul in Turkey under the treaty. These gentlemen received their commissions in September, 1829, from President Jackson. While Mr. David Offley, in virtue of nearly 20 years of effort, contributed essentially and vitally to the ultimate success of the treaty negotiations, it fell to Mr. Rhind to actually carry on the final conversations and to sign the convention in the absence of his fellow commissioners.

Thus the American Government obtained for its citizens in Turkey rights equal to those enjoyed by the citizens or subjects of the most favored nations. Thus the Black Sea, hitherto closed to the United States, was opened to American commerce and navigation. A number of Americans settled in Smyrna in those early days, and their descendants still play a part in the business life of that ancient seaport.

The treaty was transmitted to the Senate by President Jackson on December 15, 1830, and the Senate ratified its public articles on February 2, 1831. The secret article was rejected.

### AMERICAN LEGATION OPENED

On March 2, 1831, Congress appropriated funds for an American Legation in Constantinople, and on April 15 the President commissioned David Porter, at that time consul general at Algiers, as chargé d'affaires of the legation. Mr. Porter sailed in August, authorized to exchange ratifications of the treaty. He took passage on the United States steamship *John Adams*, which gained the distinction of being allowed to pass the Dardanelles without dismounting its guns.

After considerable discussion the exchange of ratifications took place on October 3, 1831, at the village of Kandili on the Bosporus (opposite the present site of Robert College), where the Reis Effendi, or Turkish Minister of Foreign Affairs, resided. Mr. Porter tells



Digitized by Google

us that "the ceremony of exchange was merely rising, the Reis Effendi taking the Turkish treaty in his right hand and the American minister doing the same with the American, raising them as high as the head and at the same instant making the exchange. The indorsement on the Turkish treaty was as follows: 'This the Imperial ratification of the treaty between the noble and Glorius Possessor of the World and the Noble Chief of the United States of America.'"

### AMERICAN VESSELS IN THE SMYRNA TRADE

Even in Colonial days American ships had ventured as far as the homeland of the "Grand Signor," Smyrna being the chief point of attraction. These trading relations had been gradually extended, notwithstanding continuous difficulties with the Barbary corsairs during the early years of American national existence. From August, 1811, to November, 1820, exclusive of the period of the War of 1812, 13 American vessels, on the average, arrived annually at the port of Smyrna. The value of their cargoes for each year was upward of a million dollars. The first American vessel that ever penetrated the Black Sea was the brig *Calumet*, of Boston, in 1810. Trade with Constantinople, however, was not undertaken on any appreciable scale until after the conclusion of the American-Turkish capitulation of 1830. American vessels were more likely to touch at Alexandria, or Alexandretta, or at some port in the Archipelago. Occasionally it happened that an American ship would carry Moslem pilgrims from Morocco to Egypt on their way to Mecca, but the main center of our commercial dealings with the eastern Mediterranean was Smyrna.

Outward bound the vessels would carry sugar, coffee, rum, spices, dyestuffs, cotton sheetings, timber, and furniture. Homeward they brought opium and other drugs, raw and manufactured silks, wool, hides, soap, old copper, Persian berries, medicinal gums, madder, oil of roses, fruit, and wine. Coffee was exported from the United States to Smyrna to the extent of 13,000 bags in a year. In return the United States took 130,000 drums of figs and 200 tons of raisins. During the year ended December 31, 1831, the commerce of Smyrna with the United States employed 27 vessels and 300 men.

### EXPANSION OF AMERICAN MERCHANT MARINE

In consequence of President Washington's efforts through his Secretary of State, Mr. Jefferson, to gain elbow room in the Mediterranean and elsewhere for the incipient American merchant marine, the United States in time, after the Napoleonic wars and the settlement of its disputes with the Barbary States, became the chief maritime nation, with only one exception, operating on the high seas. The American clipper ships ranked first of all vessels afloat. They were swift, smart, strong of construction, and were navigated with pluck. They were so highly esteemed that in the treaty with the Sublime Porte of 1830 a secret clause was inserted providing for merchant and other vessels desired by Turkey to be bought and constructed in America. This clause was not ratified by the Senate of the United States, which even then was opposed to "secret diplomacy," but testifies to the exceptional regard felt for American shipbuilding yards and for American seamanship. In those days the United

Digitized by Google

States of America not only ranked second among maritime nations but also owned and operated more than one-third of the world's tonnage.

When President Roosevelt in the autumn of 1908 sent the famous battleship fleet around the world, several separate squadrons, on the return voyage, were dispatched to visit Turkish ports—Beirut, Smyrna, Saloniki, and Tripoli (in Africa).

### AMERICAN COLLEGES AND HOSPITALS IN TURKEY

In 1923 there were in Turkey (exclusive of Syria) 9 colleges with about 2,400 students, about 50 boarding and high schools with 4,500 students, and 400 common schools with 20,000 students, all under American direction. In 1924 there were 10 missionary hospitals in Turkey under American management. The medical missionaries in that year performed some 2,000 major surgical operations and treated about 130,000 patients.

## APPENDIX II.—SPELLING OF TURKISH NAMES

In the spelling of Turkish names (geographic, economic, and personal), the editors have been governed, first, by the spellings adopted by the United States Board of Geographic Names, of which specific instances are very few; second, by Webster's International Dictionary, which again furnished but few cases; third, by such usage as has become so established as not to warrant departure from it at the present time, even though not expressing an accurate transliteration from the Turkish; fourth, in the case of mines and villages too obscure to be found on any ordinary map, the very detailed maps of the British General Staff and of Kiepert were used for identification, but with spellings in conformity with the practice followed for other names; fifth, in the case of vilayets, with the exception of Argana and Diarbekir, the spellings are the same as those adopted by the Department of State.

For the remaining names, which represent probably four-fifths of the 800 or more coming up for decision, the editors are indebted in the main to Mr. Alfred Abrevaya, clerk in the American consulate at Constantinople, who gave generously of his time while on leave in Washington.

The following Turkish words (or words borrowed from Arabic or Persian) are of such frequent occurrence in Ottoman geographic names that it is deemed best to list them here, with their English meaning, as a help to understanding what is or is not the significant part of the name in specific cases. It should be borne in mind that Turkish place names always signify some local characteristic, and are therefore repeated many times throughout the country and even in the same locality.

| | |
|---|---|
| Ada | island. |
| Afion (Afiun, Afium, Afiom) | opium. |
| Agatch | tree. |
| Agzi (or Aghizi, Aghzi) | river mouth, with landing. |
| Ain | spring. |
| Ak, or Akche | white. |
| Ala | white (in Persian). |
| Alan | forest clearing. |
| Baba | father. |
| Bagche | garden. |
| Bazar | market place. |
| Bel | mountain pass. |
| Beyaz | white. |
| Bogaz (or Bohgaz) | defile, gorge, pass. |
| Burun (also Burnu) | cape, or promontory. |
| Buyuk (or Biyuk) | large, big, or greater. |
| Chai | stream or brook (though used frequently as "river"). |
| Cherkess (or Cherkes) | Circassian. |
| Cheshmeh | fountain. |

Digitized by Google

| | |
|---|---|
| Chiftlik | farm premises, or plantation. |
| Choban (or Tchoban, Tshoban) | shepherd. |
| Dagh (or Dag) | mountain. |
| Deir (Der in Arabic) | monastery. |
| Demir | iron. |
| Derbend | sentry post, or pass. |
| Dereh (Dere) | mountain stream (by inference, the valley). |
| Din | religion. |
| Dus (or Dus; pronounced Dooz) | low plain. |
| Eski | old. |
| Ev | house, abode, dwelling place. |
| Geul (or Göl, or Gol; pronounced Gyohl). | lake, or pond. |
| Gharb (or Garb) | west. |
| Ghazi (or Gazi) | the conqueror, or the victorious one. |
| Gul | flower (rose, etc.). |
| Gumush (pronounced Goomoosh). | silver. |
| Haji | title given to one who has made the pilgrimage to Mecca. |
| Hamam (or Hammam in Arabic) | thermal baths. |
| Haneh (or Hane, Khane; or Han in Arabic) | building, house; inn, or rest house. |
| Hanum | Madam, or Mrs. (always at the end of name). |
| Hissar | ancient fort, or castle. |
| i (as suffix) | of, or "of the" (always preceded by whatever consonant is required for coalescence with the root word preceding). |
| Ibn | son (Arabic). |
| Irmak | river. |
| Isa (or Issa) | Jesus. |
| Iskele (or Iskelesi; Skala or Scala, in Italian) | landing place, or seaport. |
| Jebel | mountain (Arabic). |
| Jenub | south. |
| Kadi | judge. |
| Kaja | rock, or cliff. |
| Kaleh, Kalesi (Kalessi) | fort, stronghold. |
| Kara, or Karaja | black. |
| Kaya | cliff. |
| Keshish | monk. |
| Keui (or Keuy, Köl, Koi; pronounced Kyo-i, or Kyo-y). | village. |
| Keupru | bridge. |
| Kishla | winter village or quarters. |
| Kizil | red. |
| Kilisseh (Kilissa or Klissa) | church. |
| Kuchuk | little, or lesser. |
| Kuleh | tower. |
| lik (or jik, etc.) as suffix | little (like "let" or "kin" in English). |
| Maaden (Maden) | mine. |
| Meidan | place (Arabic). |
| Oglu (or Oghlu) | son of. |
| Ova | plain, or plateau. |
| Punar | well, or spring. |
| Ras | head, or beginning, or starting place. |
| Sanduk | box. |
| Serai | palace. |
| Shark (or Chark, or Schark) | east. |
| Shehir (or Shehr when followed by another name; Shehir pronounced Shayheer, accent on last syllable). | city. |
| Shimal | north. |
| Su (or Sou) | water (though used frequently as "river"). |
| Sulu | of liquid form. |

Digitized by Google

| | |
|---|---|
| Tash | stone, rock, cliff. |
| Tavshan (or Taushan, Tavchan) | hare. |
| Teke (or Tekke) | Moslem monastery or shrine. |
| Tel, or Tell (Arabic) | hill. |
| Tepeh (or Tepe) | hill. |
| Tuz (pronounced Tooz) | salt. |
| Uzun (or Ouzoun; pronounced Oo-zoon). | long. |
| Viran (or Veran, Viren; or Oren, Euren). | ruins. |
| Yaila | summer village or quarters. |
| Yeni | new. |
| Yeshil | yellow. |
| ieh (or yeh), as suffix | place of (Arabic). |

In the cases of Duzje and Ras-el-Ain, the spelling given in the text is preferred to that on the maps.

## APPENDIX III.—WEIGHTS, MEASURES, AND COIN VALUES

The metric system has been in official use since 1870, but the old native standards of weight and measure are still widely used in the domestic trade. English units also are widely understood in foreign-trade circles. The principal units of the old native standards are defined below.

Weight:

1 oke=1.28 kilos=2.8264 pounds.
1 batman=6 okes=16.958 pounds.[1]
1 kantar=44 okes=124.3616 pounds.
1 cheki=195 okes=551.148 pounds.
1 kileh=20 okes=56.528 pounds.
1 miskal (essence of rose)=74.171 grains.

Measure:

1 arshin (cloth)=26.96 inches.
1 arshin (land)=29.83 inches.
1 endazeh (1 pik)=25.555 inches.
1 dunum=1,098.765 square yards=0.227 acre.
1 jerib (hectare)=2.47 acres.

Coin values:

Gold—

£T1=$4.40.
£T5=$22.00.
£T2½=$11.00.
£T½=$2.20.
£T¼=$0.55.

Silver—

100 piasters=£T1=$4.40.
1 piaster=$0.044.
1 Mejidieh=20 piasters.
½ Mejidieh=10 piasters.
¼ Mejidieh=5 piasters.

There are also 2-piaster, 1-piaster, and ½-piaster pieces; and coinage of 5-piaster, 10-piaster, and 25-piaster pieces was provided for on June 22, 1925.

### STATEMENTS OF DISTANCE

Distances, where stated, are only air-line approximations intended to aid in locating the relative position of places less likely to appear on the ordinary maps available. Most of these are based on Kiepert's sectional maps of Western Asia; those for European Turkey and the Lake Van and Kars regions are based on the sectional maps of the British General Staff.

[1] The Turkish batman varies in different localities and for different commodities being weighed, but the equivalent here given is the one in greater use in the larger commercial centers. The cotton batman in the Adana district equals 4 okes, or about 11.2 pounds.

Digitized by Google

FIG. 11.—MAP OF TURKEY



30112101026638—002
FLD00200060
Digitized by Google

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

Digitized by Google

Digitized by Google

Digitized by Google